

# textile bulletin

JUNE • 1954

Featured in this issue are a number of reports from meetings held by the Sou. Textile Assn. in recent weeks; included is an account of the 1954 convention . . . Pg. 55

Bulk starch handling at Greenwood Mills' Durst Plant . . . . . Pg. 81

## Sectional INDEX

Textile Industry Schedule . . . . .	8
Knitting . . . . .	•
Washington . . . . .	21
The Textile Industry's Use . . . . .	24
The Mill Bookshelf . . . . .	38
Tutorials . . . . .	50
Opening, Picking, Carding & Spinning . . . . .	71
Yarn Preparation Weaving . . . . .	77
Maintenance, Engineering & Handling . . . . .	83
Beaching, Dyeing & Finishing . . . . .	89
Personal News . . . . .	93
Mill News . . . . .	98
Serving The Textile Industry . . . . .	100
Classified Advertising . . . . .	116

## NON-FLUID OIL

TRADE MARK REGISTERED

### SPINNING PROTECTION—BY THE POUND

Rotted roll covers and stained yarn mean one of two things: either you *have used* or *are using* ordinary oils—cheap to buy but expensive to use!

Why tolerate these costly evils—when most other mills are avoiding them through use of NON-FLUID OIL; which *stays* in roll necks of spinning frames lubricating dependably and does not creep out. Further—by outlasting ordinary oils 3 to 5 times—in spinning as in other mill operations—NON-FLUID OIL saves on oil and application cost.

Yes, leak-proof, creep-proof NON-FLUID OIL is used by 7 out of 10 leading mills. That percentage means that NON-FLUID OIL is *approved* by more textile men—in more mills—than any other lubricant.

Write now for Bulletin T-13-TB and a free testing sample of NON-FLUID OIL.

## NEW YORK & NEW JERSEY LUBRICANT CO.

SOUTHERN DISTRICT MANAGER: Lewis W. Thomason, Jr., Charlotte, N. C.

WAREHOUSES: Birmingham, Ala.—Atlanta, Ga.—Columbus, Ga.—Charlotte, N. C.—Greensboro, N. C.—Greenville, S. C.—Chicago, Ill.—Springfield, Mass.—Detroit, Mich.—St. Louis, Mo.—Providence, R. I.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture.

TEXTILE BULLETIN is published monthly by Clark Publishing Co., 218 West Morehead St., Charlotte 2, N. C. Subscription \$1.50 per year in advance, \$3.00 for three years. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.



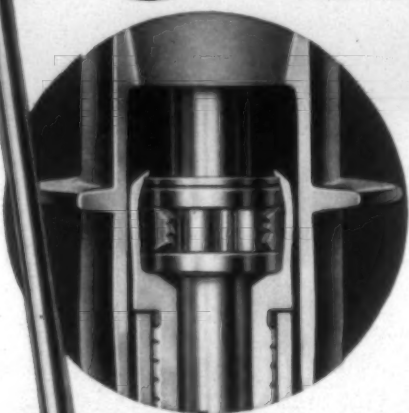
# new

## DRAPER LOW COST SPINDLE-

### *Anti-Friction*

for

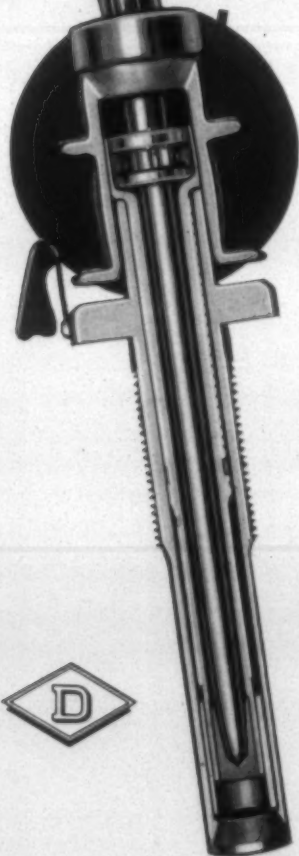
- STIMPSON or THOMPSON CLUTCH
- SOLID ACORN      • BAND DRIVE
- TOP DRIVE      • TAPE DRIVE



Outstanding in World Spindle manufacture . . . inexpensive and completely reliable. Note these mill proven features:

- LOW COST • REDUCED OILING CYCLE • DECREASED VIBRATION
- INCREASED SPEED WITHOUT INCREASED END BREAKAGE
- ALL STEEL BASE CONSTRUCTION • RUST-RESISTANT FINISH

Cost savers like these belong in your mill operation. Draper offers you a complete line of filling and warp Anti-Friction spindles for use with wood bobbins.



NEW TOP DRIVE SPINDLE

Large Anti-Friction and Medium Anti-Friction constructions.



LARGE ANTI-FRICTION SPINDLE

With Stimpson Clutch — Can also be furnished with Thompson Clutch and Cap.



## DRAPER

*"Retaining Leadership  
through Research"*

### CORPORATION

HOPEDALE, MASS.

ATLANTA, GA.  
GREENSBORO, N.C.  
SPARTANBURG, S.C.



Precision  
Paper  
Products



# SONOCO TUBES

**For Every  
Textile  
Need . . .**

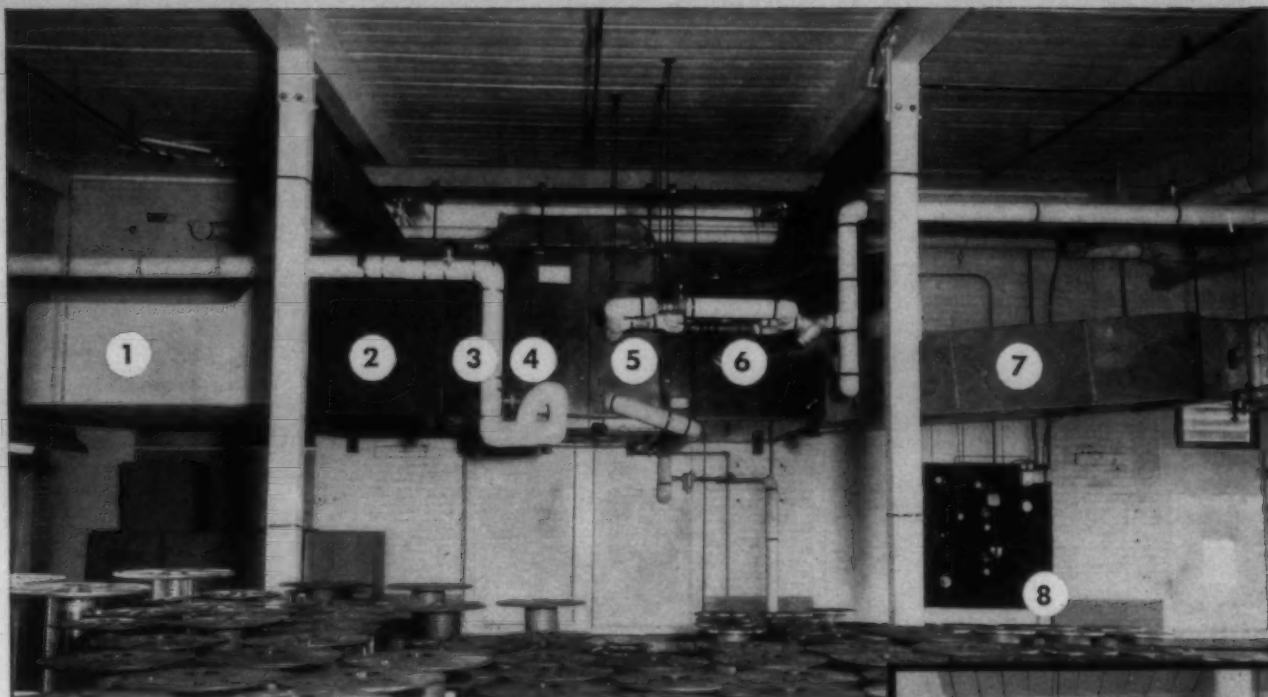
Sonoco produces spiral, convolute, parallel or drawn tubes in sizes from  $\frac{1}{8}$ " to 36" I.D., in any practical length and wall thickness. Available in colors, various surfaces, treated, impregnated, perforated, scored, notched, printed, with crimped or burnished ends. Over 50 years' experience enables us to help you with any problem that can be solved with a paper tube.



## SONOCO PRODUCTS COMPANY

MAIN OFFICE—HARTSVILLE, S. C.  
MYSTIC, CONN. LOS ANGELES, CAL. BRANTFORD, ONT. LOWELL, MASS.  
PHILADELPHIA, PA. AKRON, IND. GARWOOD, N.J. GRANBY, QUEBEC

**DEPENDABLE SOURCE OF SUPPLY**



Amco Unit Dry-Duct System installed at Raytric Knitting Mill, Inc., Bristol, Conn. Shown here are (1) fresh air inlet from outdoors; (2) plenum chamber, showing recirculated air louvers underneath; (3) air filter; (4) heating coils; (5) cooling coils; (6) fan; (7) air duct; (8) control panel; (9) outlet in air duct; (10) atomizer; (11) humidity control



## Floor Area Limited?

**This compact AMCO Unit Dry-Duct System  
may be your answer**

An Amco Unit Dry-Duct System is composed of a self-contained air conditioning unit, distribution ducts and room atomizers. The unit itself is compact and can be installed overhead, out of the way, where it will not take up valuable mill floor space.

Here's how it operates. Automatically operated louvers introduce into the unit fresh air and recirculated air in proper proportions. The air is filtered, if desired, and then heated as required. This "dry" air is distributed to the working area through ducts. Humidification is provided by

room atomizers located in front of each air duct outlet. Spent air and heat is exhausted automatically through vent louvers.

Amco Unit Dry-Duct Systems operate with evaporative cooling *only*, or with cooling coils, as in the featured installation at Raytric Knitting Mill, Inc.

The Unit Dry-Duct System is but one of the many types of air conditioning systems which Amco manufactures, engineers and installs in textile mills. Amco is in the unique position of being able to give you

the widest possible choice between humidification, evaporative cooling (central station, dry-duct, or ductless type) or refrigeration, alone or in combination. Call an Amco engineer. You can rely on him to give you advice on the system best suited to your needs.

# AMCO

AIR CONDITIONING SYSTEMS since 1888

Humidification • Evaporative Cooling (Ductless, Dry-Duct or Central Station) • Refrigeration

AMERICAN MOISTENING COMPANY, PROVIDENCE, R. I. • ATLANTA • BOSTON • CAMDEN • CHARLOTTE • AFFILIATED WITH GRINNELL COMPANY, INC.

# Formaldehyde moves fast



... from Borden's three convenient plants at  
Demopolis, Ala., Bainbridge, N.Y. and Springfield, Ore.

When you want formaldehyde in a hurry, you can count on Borden to find the fastest way to reach your plant. Within 300 miles of a Borden source, deliveries are generally by tank truck. Beyond, tank cars do the job. In any area, drum shipments are available. Dependable and frequent deliveries by Borden save you the trouble and expense of maintaining huge storage tanks... yet assure you of a ready supply for uninterrupted operation.

Borden has the type formaldehyde which best fits your needs: economical 44%, inhibited or uninhibited, from Bainbridge and Demopolis; 37% inhibited, also known as "formalin", "U.S.P." or "N.F."; 37% uninhibited, ship-

ped in tank cars or tank trucks; or to your own specifications. Write for quotation: The Borden Company, Chemical Division, Dept. TB-64, 350 Madison Avenue, New York 17, N.Y.

INDUSTRIAL CHEMICALS

THE *Borden* COMPANY  
CHEMICAL DIVISION



FORMALDEHYDE \* HEXAMETHYLENETETRAMINE \* RESORCIN \* CASEIN \* Urea-Phenolic-Polyvinyl-Epoxy-RESINS





A view of the sizing and quetsch unit of the new pilot plant slasher assembly.

## NEW PILOT PLANT SLASHER ASSEMBLY HELPS SOLVE TEXTILE PRODUCTION PROBLEMS

To supply the textile industry with up-to-the-minute factual information concerning starch sizes a highly integrated pilot assembly is in operation in an important research institution.

This project is tremendously effective in the study of sizing of all types of natural and synthetic yarn manufactured from either staple fibers or continuous filaments. The flexibility of this entire assembly allows an approach to textile

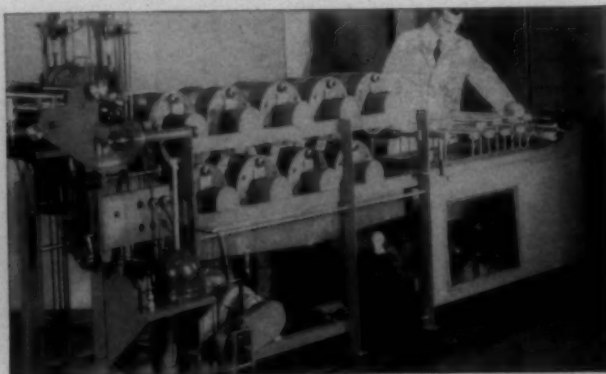
production problems from either a research or technical point of view.

This work is sponsored by the Multiple Fellowship program of Corn Products Refining Company. An interesting full-color brochure on this operation is available. Write today for your copy.

Corn Products Refining Company  
17 Battery Place, New York 4, N. Y.



Major components of the entire slasher assembly are shown in the above photo.



Another view of the highly flexible pilot plant slasher assembly. Note duplicate control panel by size unit.



be  
the  
of  
it

THE SOUTH'S LARGEST MAKERS OF GEARS AND CHAIN DRIVES

# It's News<sup>★</sup> From PRECISION GEAR



## ★NEWS FOR QUALITY!



### CARDING

**SPECIAL COILER GEARS**, designed to reduce Con Table speed and lay Sliver coils closer. They add pounds per can, without reducing sliver quality. They reduce creeling time on lap machine; lengthen time between doffs. Low cost, easy to install on H & B, Whitin, Saco-Lowell, Saco-Pettee.



### ROVING

**JACK SHAFT BEARINGS** for all Roving Frames—they pay out in power savings. Stop drag and maintenance. Add smoother, quieter operation. Life-time sealed, prelubricated, self-aligning.

### SPINNING

**BALL BEARING CAM UNIT** aids in perfect ring rail movement, stops play between stud and housing, provides more and better bobbin build. No lubrication, no wear compensating, no replacement.



### WEAVING

**LOOM HARNESS SHEAVES** with prelubricated and sealed ball bearings are inexpensive, integral units, with 1" bore to fit standard shafts. Their smooth, trouble free performance, with negligible maintenance, provide definite competitive advantages.



WRITE FOR BULLETINS  
OR PHONE 4-6857

# PRECISION



GEAR AND MACHINE CO.

ENGINEERS • MANUFACTURERS

2001 North Tryon St., Charlotte, N. C.

CAMS CHAIN DRIVES GEARS BEARINGS

## TEXTILE INDUSTRY SCHEDULE

— 1954 —

- Sept. 13-14 (M-Tu)—Fall meeting, **THE FIBER SOCIETY** (Textile Technical Federation of Canada and Canadian Assn. of Textile Colourists and Chemists as hosts), McGill University, Montreal, Que., Canada.
- Sept. 15-18 (W-Sa)—National convention, **A.A.T.C.C.**, Atlanta (Ga.) Biltmore Hotel.
- Sept. 23-24 (Th-F)—Annual meeting, **COMBED YARN SPINNERS ASSN.**, Grove Park Inn, Asheville, N. C.
- Sept. 25 (Sa)—Slashing and weaving meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES**, Thach Auditorium, Alabama Polytechnic Institute, Auburn.
- Sept. 28-30 (Tu-Th)—**INDUSTRIAL PACKAGING AND MATERIALS HANDLING EXPOSITION**: concurrent short course Sept. 27-30 and competition Sept. 28-30 (sponsored by Society of Industrial Packaging and Materials Handling Engineers), Chicago (Ill.) Coliseum.
- Oct. 4-8 (M-F)—**SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.
- Oct. 7-8 (Th-F)—**CHEMICAL FINISHING CONFERENCE** (sponsored by National Cotton Council of America), Statler Hotel, Washington, D. C.
- Oct. 12-15 (Tu-F)—**NATIONAL CHEMICAL EXPOSITION** (sponsored by American Chemical Society), Chicago (Ill.) Coliseum.
- Oct. 14-15 (Th-F)—Convention, **THE QUARTERMASTER ASSN.**, Sheraton-Plaza Hotel, Boston, Mass.
- Oct. 14-15 (Th-F)—Annual meeting, **NORTH CAROLINA TEXTILE MFES. ASSN.**, The Carolina, Pinehurst, N. C.
- Oct. 16 (Sa)—Annual meeting, **PIEDMONT SEC.**, A.A.T.C.C., Hotel Barringer, Charlotte, N. C.
- Oct. 18-22 (M-F)—**NATIONAL SAFETY CONGRESS AND EXPOSITION** (sponsored by National Safety Council), Chicago, Ill.
- Oct. 23 (Sa)—Slashing and weaving meeting, **TEXTILE OPERATING EXECUTIVES OF GEORGIA**, A. French Textile School, Georgia Institute of Technology, Atlanta.
- Nov. 11-12 (Th-F)—Annual convention, **CARDED YARN ASSN.**, Atlanta-Biltmore Hotel, Atlanta, Ga.
- Nov. 15-17 (M-W)—Fifth **NATIONAL CONFERENCE ON STANDARDS** (sponsored by American Standards Assn.), Hotel Roosevelt, New York City.
- Dec. 4 (Sa)—**SOUTH CENTRAL SEC.**, A.A.T.C.C., Hotel Patten, Chattanooga, Tenn.
- Dec. 11 (Sa)—**SOUTHEASTERN SEC.**, A.A.T.C.C., Atlanta Biltmore Hotel, Atlanta, Ga.

— 1955 —

- Jan. 24-27 (M-Th)—**PLANT MAINTENANCE & ENGINEERING SHOW**, International Amphitheatre, and **CONFERENCE**, Conrad Hilton Hotel, Chicago, Ill.
- Jan. 27-29 (Th-Sa)—Annual meeting, **TEXTILE DIV., AMERICAN SOCIETY FOR QUALITY CONTROL**, Clemson (S. C.) College.
- Jan. 31-Feb. 1 (M-Tu)—Annual meeting, **NATIONAL COTTON COUNCIL OF AMERICA**, Hotel Shamrock, Houston, Tex.
- Mar. 31-Apr. 2 (Th-Sa)—Annual meeting, **AMERICAN COTTON MFES. INSTITUTE**, Palm Beach (Fla.) Biltmore Hotel.
- Apr. 26-30 (Th-Sa)—Annual convention, **DELTA KAPPA PHI Textile Fraternity**, Lowell (Mass.) Technological Institute.
- May 16-20 (M-F)—**MATERIALS HANDLING EXPOSITION**, International Amphitheatre, Chicago, Ill.
- June 16-18 (Th-Sa)—Annual convention, **SOUTHERN TEXTILE ASSN.**, Mayview Manor and Green Park Hotel, Blowing Rock, N. C.
- June 25-July 10 (Sa-Su)—**INTERNATIONAL TEXTILE EXHIBITION**, Brussels, Belgium.
- Sept. 21-23 (W-F)—National convention, **A.A.T.C.C.**, Chalfonte-Haddon Hall, Atlantic City, N. J.

— 1956 —

- Sept. 10-12 (M-W)—National convention, **A.A.T.C.C.**, Waldorf-Astoria Hotel, New York City.

— 1957 —

- Fall—National convention, **AMERICAN ASSN. OF TEXTILE CHEMISTS AND COLORISTS**, Boston, Mass.

— 1958 —

- Apr. 28-May 2 (M-F)—**AMERICAN TEXTILE MACHINERY EXPOSITION**, Atlantic City (N. J.) Auditorium.

\* Listed for the first time this month.

† Tentative listing.

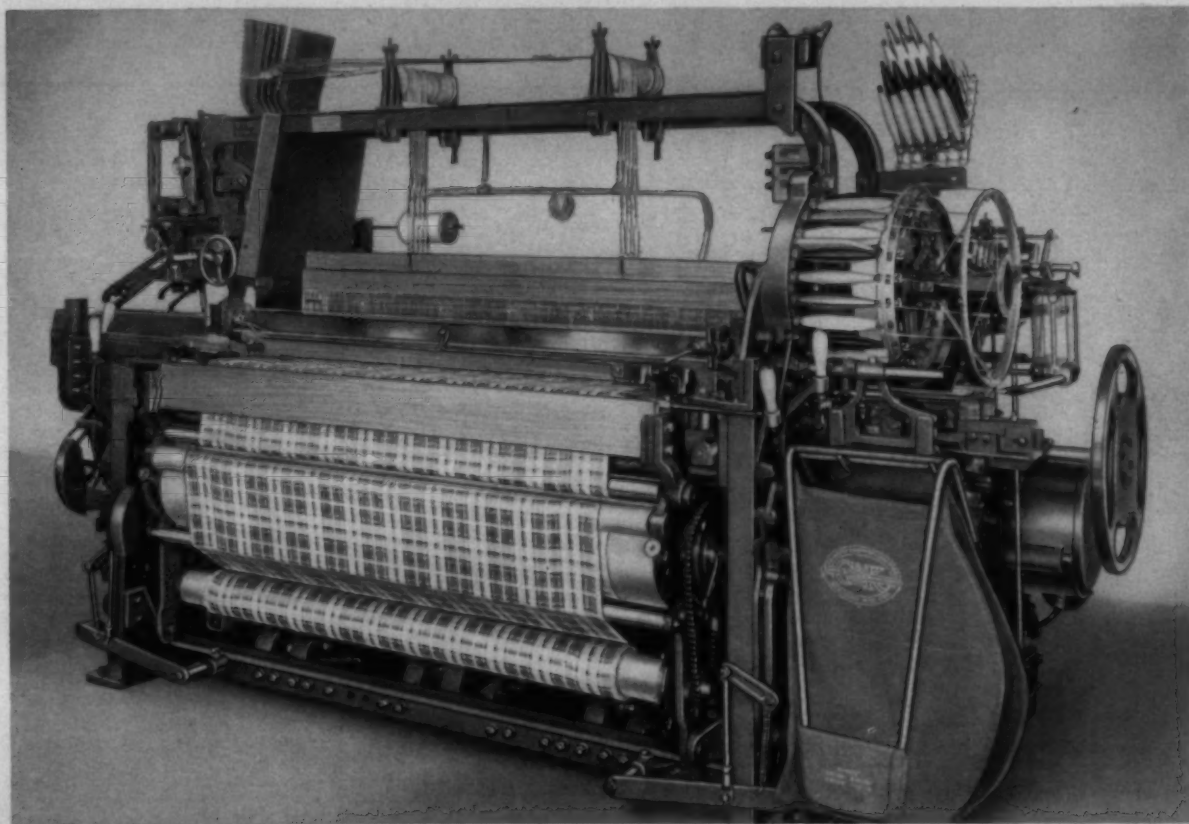
‡ Changed or corrected from previous issue.

(M) Monday; (Tu) Tuesday; (W) Wednesday;

(Th) Thursday; (F) Friday; (Sa) Saturday; (Su) Sunday



Here's what C & K's  
***New 4X1 Filament Loom***  
 will do for YOU...



New C&K Multi-Purpose Looms give you 4 definite advantages:

**1. Lower Maintenance Cost:** Greater weight and rigidity of loom-frame means far less vibration. Many more parts are doweled into place . . . settings are retained. New cone picking motion cuts down-time and increases efficiency.

**2. Increased Work Assignments:** Better control of both filling and warp . . . together with decreased maintenance costs . . . should make possible an increase in work assignments.

**3. Greater Flexibility:** New M-P Looms are readily and widely convertible. Any motion may be applied to the basic frame . . . and all parts of all motions have been designed to fit onto this frame.

**4. Better Quality of Cloth:** With both filling and warp under better control, better quality of cloth is assured.

The loom shown above . . . for weaving 4-color filament dress goods automatically . . . is one of 5 new C&K Multi-Purpose Looms that give you greater flexibility and versatility than any weaving equipment built today. For details and prices, see C&K.



This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Fabrics . . . which are **WOVEN** Fabrics.

***Crompton & Knowles LOOM WORKS***

WORCESTER 1, MASSACHUSETTS, U. S. A.

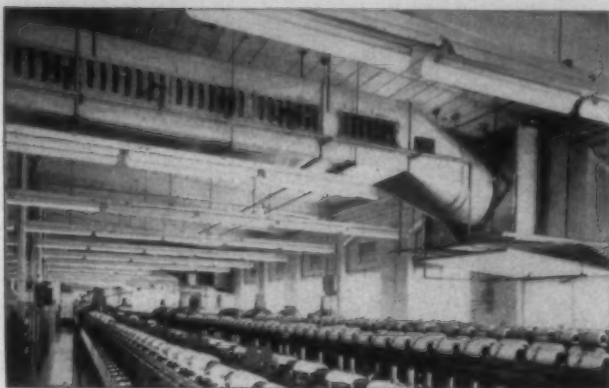
Philadelphia, Pa. • Charlotte, N. C. • Allentown, Pa.

Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

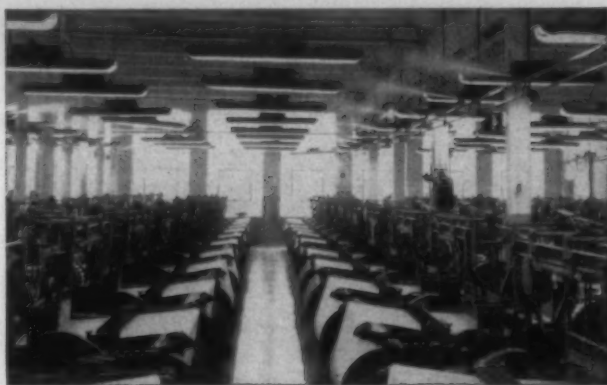
# Parks-Cramer

## CERTIFIED CLIMATE

YOU know the value of closely controlled atmospheric conditions in the textile mill. OUR object is to design the best possible air conditioning apparatus and to recommend the system most suited to your requirements.



Automatic Airchanger—unit or central type.



Gradumatic Humidification.



Air Washer System—central station or ceiling type—straight or in combination with direct humidification or refrigeration.

Each system flexible and of dependable capacity.

All with Gradual Acting Psychrostat Regulation.



Engineering, manufacturing, installing by Parks-Cramer.  
Complete new installations. Modernizing of existing systems.  
Centralized responsibility.  
Textile mill humidification and air conditioning since 1906.



## Parks-Cramer Company

FITCHBURG, MASS.

CHARLOTTE, N. C.



Eloquently as a thousand words  
this picture tells the graphic story  
of fashion's trend toward simple lines  
coupled with ingenious textures and  
brought to life by magnetic color effects.

Anticipating your ever-changing needs,  
we have been expanding our services  
in several directions simultaneously . . .  
adding interesting new colors to our lines,  
increasing personnel and facilities of our  
color research and application laboratories,  
issuing up-to-date color cards and bulletins,  
re-orienting branch office services and  
balancing local warehouse stocks.

Today we can serve you better than ever  
with low-cost matches and formulas on your  
new numbers, application help and prompt  
delivery of the dyes you need at every step  
from samples to mill runs to fill-ins.

*National Aniline Dyes*

**NATIONAL ANILINE DIVISION**

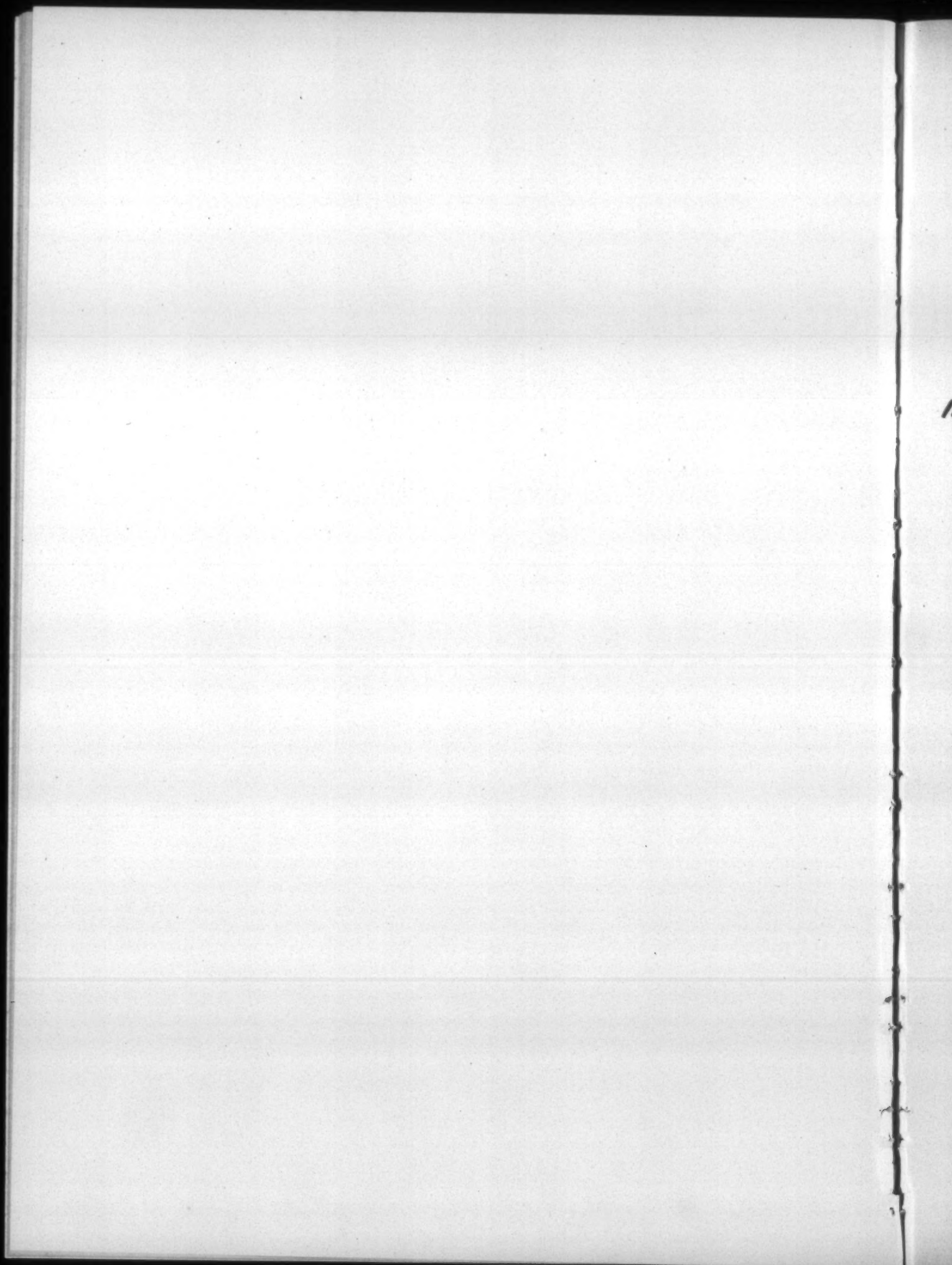
ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N. Y.

Boston Providence Philadelphia Chicago San Francisco Portland, Ore. Greensboro Charlotte Richmond Atlanta Columbus, Ga. New Orleans Chattanooga Toronto







*"This solution  
satisfied the  
Safety Engineering  
Department..."*



A leading carpet manufacturer in the Philadelphia area was faced with a serious problem — oil slick floors caused by lubricant leakage and throw-off. The Safety Engineering Department issued frequent warnings about dangerous conditions near the looms. Both conventional and special-purpose lubricants were tried but they either did not do a proper lubricating job or failed to stop the leakage.

When Sinclair Lubrication Engineer Harry Donovan was called in, he spent several days observing operating conditions. "Then," he reports, "I recommended Sinclair NO DRIP. I reasoned that Sinclair NO-DRIP was the right oil for this job because it is a high quality lubricant *especially fortified with Sinclair-developed additives to eliminate leakage and throw-off*. A trial period proved this recommendation entirely solved the problem. Soiled, slippery floors were eliminated and oil consumption was cut. What's more, Sinclair NO-DRIP Oils' superior lubricating qualities decidedly lengthened bearing life."

## **SINCLAIR LUBRICANTS**

Why not let a Sinclair Lubrication Engineer help solve *your* lubrication problem?  
*There's no obligation.* Contact your local Sinclair office or write  
Sinclair Refining Company, 600 Fifth Avenue, New York 20, N. Y.

*NOW...an Individual Card Drive*

*at a price you can justify*



Here is a new individual card drive. Not only is the first investment for this drive low, but its simple time-tested principle assures little, if any, maintenance cost.

THIS DRIVE MAINTAINS STANDARD CARD OPERATING PROCEDURE AND PRESENT METHOD OF STRIPPING, eliminating cost of separate stripping devices and dangers inherent in training personnel in new methods. The operation, in addition to being easier and more quickly executed, is safer than ever before.

MILLS EQUIPPED WITH THIS DRIVE CAN STANDARDIZE CARD PRODUCTION since the slippage associated with any type of belt drive has been eliminated. It embodies the advantages of direct drives plus the slip-clutch safety to prevent possible damage from chokes.

AS A PACKAGED UNIT, this drive is easily and quickly installed. It is fitted with a rigid mounting direct to the card frame with no complicated reduction unit or overhung load on the cylinder shaft. Occupying approximately the same space as existing flat belt drives, this drive leaves the flats clear and eliminates the danger of springing arches or damage to flats due to vibration.

Now you can reduce the production loss of group shut-downs and eliminate the accidents and costly maintenance associated with belts and line shafts.

If you haven't seen this drive, contact your nearest Southern States representative or write today for Bulletin No. 200.

*All the parts necessary for continuous stripper drive can be supplied at moderate extra cost.*

**Southern States**  
HAMPTON



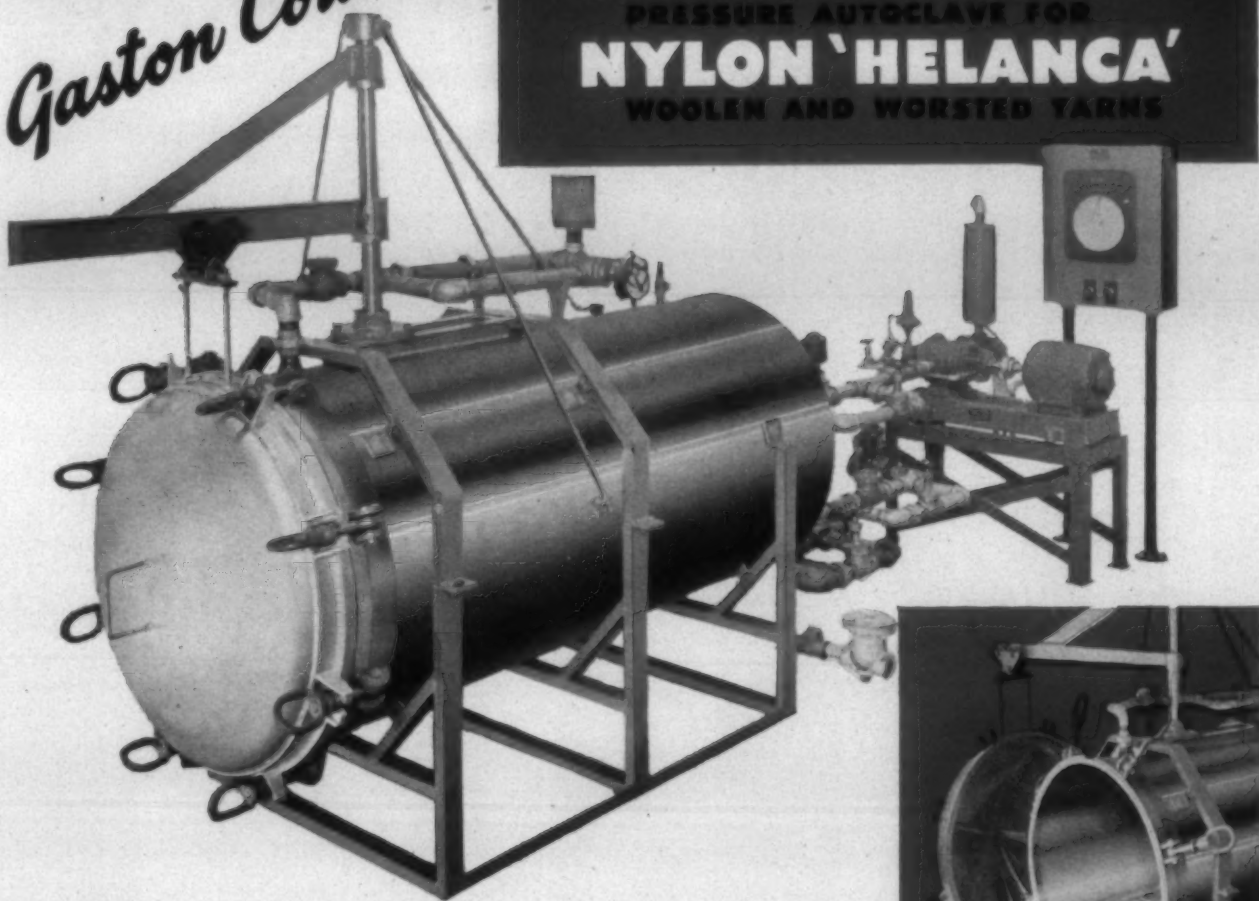
**Equipment Corp.**  
GEORGIA



*Gaston County*

# NEW 'HY-VACUUM'

PRESSURE AUTOCLAVE FOR  
**NYLON 'HELANCA'**  
WOOLEN AND WORSTED YARNS



Developed primarily for steam setting the twist in Nylon "Helanca" yarns, this new controlled vacuum-pressure system has a definite place in other types of steam processing. Experimental projects now being conducted by leading woolen and worsted mills are showing such remarkable results, it may indicate the replacement of conventional steam box methods, on the basis of quality alone.

## THE PROCESS—More Efficient, More Economical

- Start vacuum pump by means of push button. 22" to 25" vacuum is produced in 2 to 3 minutes. Pump stops automatically.
- Steam is injected at controlled temperature for any desired time period. Steam is expelled automatically.
- Automatic controls start pump and vacuum cycle is repeated to remove moisture from vessel.
- Pump stops and vacuum relief valve opens to restore atmospheric conditions inside vessel.

## THE ADVANTAGES—Higher Quality, Bigger Profits

- Time saving. Complete process in 30 minutes or less, depending on steam injection cycle required.
- Positive shrinkage. Yarn is shrunk and twist is set uniformly from outside to spool core.

CUSTOM BUILT to customer specifications in accordance with ASME standards, Gaston County autoclaves can be designed with vessels to fit into existing systems using present pin racks and trucks.

RUGGED CONSTRUCTION, always an outstanding feature of Gaston County beam and package dyeing machines, is even more essential in vacuum vessels. Our engineering staff is eminently qualified by experience to design the best equipment for your requirements.

COMPLETELY AUTOMATIC OR MANUAL machines are available. Whether your requirements are large or small we are equipped to serve you. Please phone, write, or wire for complete details.



# GASTON COUNTY DYEING MACHINE CO.

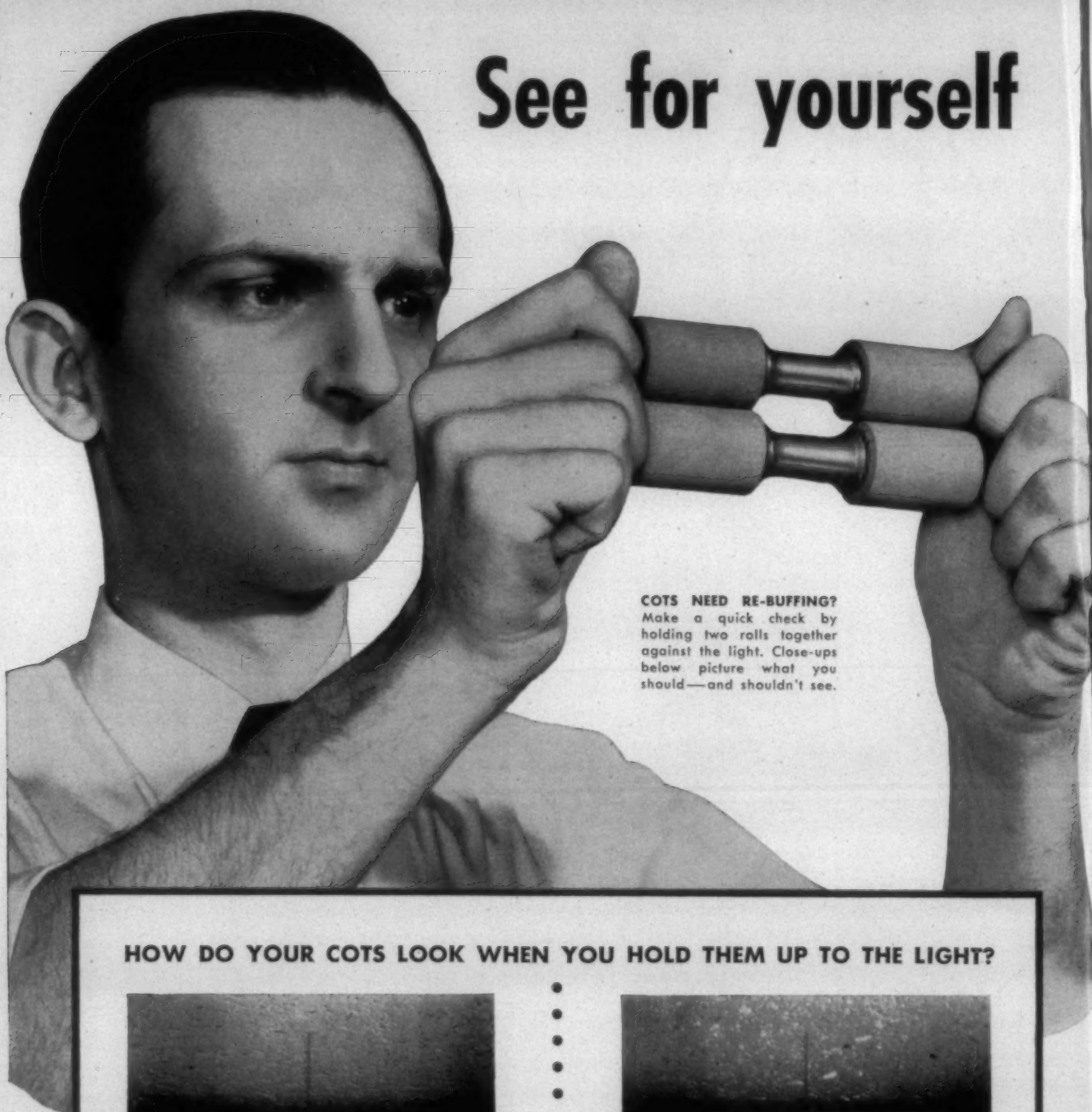
*Pioneers in Automatically Controlled Dyeing Machines*

Stanley, North Carolina

Gaston County Dyeing Machine Co.  
Terminal Building, 68 Hudson St.,  
Hoboken, N. J., G. Lindner, Mgr.

The Rudel Machinery Co., Ltd.  
614 St. James St. W., Montreal  
137 Wellington St. W., Toronto

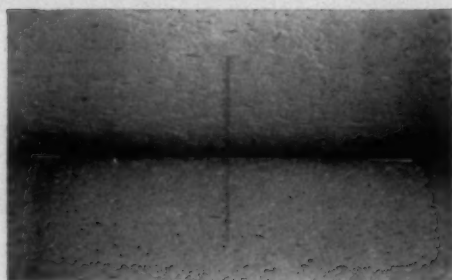
# See for yourself



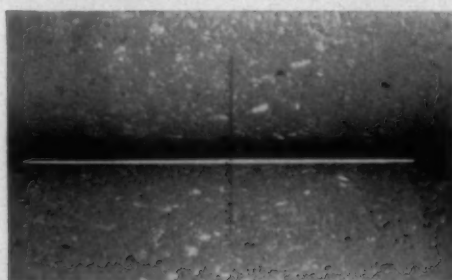
## COTS NEED RE-BUFFING?

Make a quick check by holding two rolls together against the light. Close-ups below picture what you should—and shouldn't see.

### HOW DO YOUR COTS LOOK WHEN YOU HOLD THEM UP TO THE LIGHT?



**O. K.** These Armstrong's NO-742-S Cots have been on the frame 11 months, yet need no rebuffering. Performance like this has convinced mill men that the NO-742-S stops serious eyebrowing, requires only a minimum of re-buffering to maintain yarn quality.



**NEEDS RE-BUFFING.** If your inspection shows that cots are hollowing out or grooving prematurely, they're probably not controlling yarn so well as they should. Install NO-742-S Cots for minimum re-buffering and maximum eyebrow resistance.

These photographs are 5 1/2 times actual size.

## ARMSTRONG'S

# how Armstrong's NO-742-S Cot RESISTS GROOVING SPINS QUALITY YARN

**Quick test shows how much longer  
these eyebrow-resistant cots wear**

For a fast, on-the-spot check on how well your cots are wearing, try this:

Take two rolls off your frames, put them together cover to cover, and hold them up to the light. If you can see daylight between them, your cots probably are not giving you good yarn control. Because this test shows double the actual wear, it gives a magnified view of any hollowing or grooving and helps you detect premature cot failure.

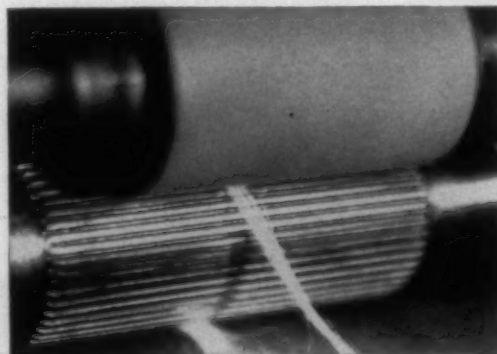
One of Armstrong's customers who made this test told us afterwards, "I was pleased to discover I couldn't see a bit of light between Armstrong's NO-742-S Cots. They'd been in constant use for almost a year and **still didn't need re-buffing!** They were running exceptionally clean, without slicking or glazing."

In most spinning rooms, NO-742-S Cots keep their high-friction "bite" for months. In fact, re-buffing is seldom necessary before the cots have run a year.

**Controls eyebrowing.** Armstrong's newest Accotex® cot has been mill-tested for over two years on all types of spinning equipment and on many different types of yarn. In every test, results were the same. NO-742-S Cots eliminated eyebrowing as a serious problem.

The thousands of tiny "teeth" on the spinning surface of this lap-resistant cot do the trick. They pick up the waste fibers and pack them well back on the clearers where they belong. As one mill man put it, "I can pick out the rolls covered with these new cots without ever lifting a clearer board. When all the others have eyebrows these new ones don't!"

Ask your Armstrong man about this new NO-742-S Cot. He'll be glad to get you samples for your own spinning frames. Write Armstrong Cork Company, Textile Products Department, 6506 Davis Ave., Lancaster, Penna. These new Accotex cots are available for export.



## **WITH REVOLVING CLEARERS, USE THE LAP-RESISTANT J-490 COT**

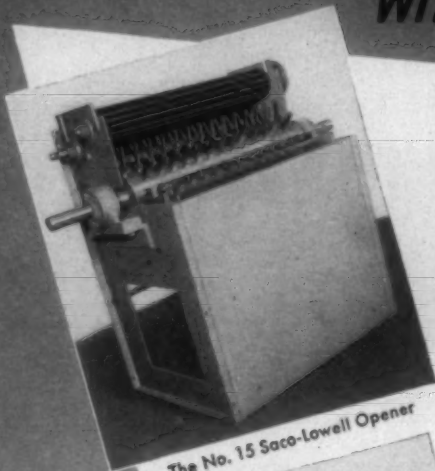
For spinning fine yarns, and for any count yarn with revolving clearers, Armstrong's J-490 Accotex Cots have proved ideal in hundreds of mills. Special electrolytes added to the J-490's long-wearing synthetic rubber composition make it highly resistant to lapping. The J-490 runs exceptionally clean, too. If lapping's a problem, call your Armstrong man today and arrange for a test side of J-490 Accotex Cots.



**ACCOTEX COTS** ————— NO-742-S • J-490 • NC-727 —————



**INCREASE THE EFFICIENCY OF YOUR OPENING ROOM  
WITHOUT EXTRA OPERATING COST**



The No. 15 Saco-Lowell Opener



No. 15 Opener with No. F7  
Cleaning & Blending Feeder



No. 15 & No. F7 — Illustrating  
Connecting Pipe & Main Trunk to No. 11  
Dust & Waste Extractor

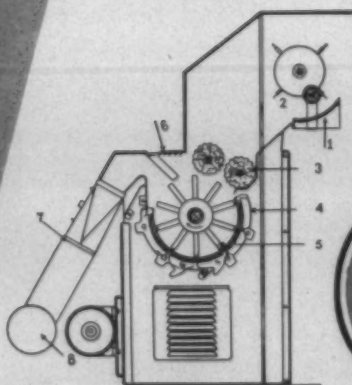
# with the **NEW** **SACO-LOWELL** **No. 15 OPENER**

- REMOVES BROKEN LEAVES, STICKS & HEAVY IMPURITIES
- IMPROVES BLENDING
- PRODUCES FLUFFY, COMPLETELY OPENED STOCK BETTER PREPARED FOR PROCESSING BY OTHER OPENING LINE MACHINES

In actual test the new Saco-Lowell No. 15 Opener increased the amount of waste extracted by the opening line from 1.245% to 1.560%, an increase of 25.3%. This marked increase during the first cleaning process resulted in the removal of heavy impurities which heretofore were broken up and powdered, thereby making later extraction difficult and costly.

Increased cleaning in the opening line can be attained with the installation of the Saco-Lowell No. 15 Opener.

A technical bulletin describing the new Saco-Lowell No. 15 Opener is available on request.



- |                            |  |
|----------------------------|--|
| 1. Steel Bar Cleaning Grid | 6. Louvres for Air Intake                        |
| 2. Steel Doffer            | 7. Connecting Pipe to Main Trunk                 |
| 3. Wooden Delivery Rolls   | 8. Main Trunk to No. 11 Dust and Waste Extractor |
| 4. Adjustable Grid Bars    |  |
| 5. The No. 15 Beater       |  |



## **SACO-LOWELL**

60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD and SACO, MAINE; and SANFORD, N. C.

SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA



## GET ONE CALL SERVICE ON ALL THESE TEXTILE CHEMICALS

With plants strategically located to serve the heart of the textile industry, Westvaco alone offers the benefit of integrated production of all the chemicals listed at the right.

When you order any of these chemicals from Westvaco, you'll get "on-the-dot delivery" from nearby plants at South Charleston, W. Va. or Carteret, N. J.—plus the friendly interest of men who can give you a prompt, concise answer on your alkali, phosphate or other chemical needs.

Contract or spot, it pays to call Westvaco first.

### ALKALIS

CAUSTIC SODA  
Liquid 50% Standard Low Iron  
and Rayon Grades  
Liquid 75% Standard  
and Low Iron Grades  
Fleke, Solid and Ground  
CAUSTIC POTASH  
Liquid 50% and 45%  
Fleke and Solid  
SODA ASH, Refined  
Light, Regular, Dense,  
Granular Dense  
and Unclassified Dense

### PHOSPHATES

SODIUM ACID PYROPHOSPHATE  
MONOSODIUM PHOSPHATE  
TETRASODIUM PYROPHOSPHATE  
TETRAPOTASSIUM PYROPHOSPHATE  
DIPOTASSIUM PHOSPHATE  
DISODIUM PHOSPHATE  
SODIUM TRIPOLYPHOSPHATE  
MONOPOTASSIUM PHOSPHATE  
TRIPOTASSIUM PHOSPHATE  
HEXAPHOS\*  
TRISODIUM PHOSPHATE ANHYDROUS  
PHOSPHORIC ACID—75% and 85%  
POTASSIUM PHOSPHATE LIQUOR  
POTASSIUM TRIPOLYPHOSPHATE

### OTHER CHEMICALS

ALUMINA HYDRATE  
BARIUM PEROXIDE  
BLANC FIXE (Barium Sulphate)  
CARBON BISULFIDE  
CARBON TETRACHLORIDE  
FIRE EXTINGUISHER FLUID  
ETHYLENE DIBROMIDE  
PERCHLOROETHYLENE  
HYDROGEN PEROXIDE  
SODIUM SULFIDE  
CHLORINE  
BROMINE

\*Westvaco Brand  
Sodium Hexametaphosphate

## WESTVACO CHEMICAL DIVISION

SALES AGENT FOR

WESTVACO MINERAL PRODUCTS DIVISION  
WESTVACO CHLOR-ALKALI DIVISION  
FOOD MACHINERY AND CHEMICAL CORPORATION

GENERAL OFFICES • 161 EAST 42nd STREET, NEW YORK 17

CHARLOTTE, N. C. • CHICAGO, ILL. • CINCINNATI, OHIO • DENVER, COLO. • LOS ANGELES, CALIF.  
NEWARK, CALIF. • PHILADELPHIA, PA. • PITTSBURGH, PA. • ST. LOUIS, MO. • VANCOUVER, WASH.



Reg. U.S. Pat. Off.

don't be caught short . . .

*Keep a  
good spare  
handy!*



## BAHAN LOOM PARTS GIVE LONGER SERVICE

					
BTM HARNESS CHANGE GEAR. Has special split feature for fast and easy installation.	BTM CHANGE GEARS. Precision cut teeth give smoother pick motion and longer service.	BTM PARALLEL. Finest quality cast iron. Machine finished for long service.	IDLE GEAR ASSEMBLY with stud collars, washers and brass bushing. Alemite fitting.	BTM CAM SHAFT GEAR with precision machine cut teeth. Gives outstanding service.	CLOTH ROLL GEAR and WORM. Steel hardened and ground bore. Lasts the life of the loom.
					
SPRING CRANK ARM complete with 58938 Crank pin (replacement) for Wood Crank arms.	BTM PICK CAM HUB. Malleable iron bored with shims for clamp fit. Split for easy installation.	BTM CRANK SHAFT GEAR, a machine cut gear that is split (or Batex) for easy installation.	BTM CRANK SHAFT GEAR, cast saw tooth. Split type for faster change.	BTM TREADLE ROLL, ball bearing. Long wearing, smooth running. Lessens fire hazard.	FILLING CAM FOLLOWER HUB BUSHING. Two piece. Made of hardened and ground steel.
			BTM CHANGE GEAR STUD, with brass bushing. — with 76790 brass bushing.	BTM PARALLEL TONGUE, hardened and ground for smooth, trouble-free action and long wear.	BTM PARALLEL SHOES. These shoes have lips that provide true alignment and parallel.

## CHECK YOUR NEEDS . . . ORDER TODAY!

The need of some critical part can disrupt your entire production schedule . . . Don't be caught short . . . Bahan can make immediate shipment of these and other Bahan loom parts. Keep your parts supply complete.

The BTM Stamping is Your Assurance of Dependable Loom Parts.

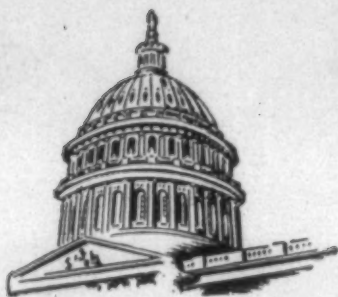


## BAHAN TEXTILE MACHINERY CO.

INCORPORATED

GREENVILLE, SOUTH CAROLINA





# WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

The President's aides expect that about one-half of his legislative program will be enacted before Congress adjourns. Favorable action is hoped for on some tax changes, more social security, easier credit on housing, military aid, hospital building, a higher debt limit, and continuation of military aid abroad. Statehood for Hawaii is unlikely, and so are tariff cuts, higher postal rates, and rigid price supports for farm products.

A balanced budget at the end of the next fiscal year is not in sight in the light of the spending record Congress is making. There are sharp cuts in proposals here and there, but a bonanza of tacking on new grants, and increasing budget requests on others, is going on in the House and Senate. Economy is scarcely skin deep in the voting of either branch.

The President is becoming irked at the frequency of repetition that recession is here, with a fast mounting roster of unemployed persons. He directed his economic adviser, Arthur Burns, to hold a "press conference," and tell what has been done to lower inflation. He said Burns does not accept the opinion of one person in the matter, including the President's opinion.

Administration leaders are disturbed over the outspoken refusal of Southern states to accept the Warren de-segregation decision in public schools. The decision, in itself, does not set up a plan for de-segregation, and Congress is not expected to enact one. The only remedy at hand for refusal is for the Department of Justice to attempt to bring mandamus proceedings and contempt citations in Federal courts.

In many Northern areas the de-segregation decision appears to be as unpopular as it is in the South. Some school officials say that in communities where integration has been attempted, the maintenance of student discipline has become almost impossible. Instances of reprimand of colored students are often used by parents to file charges of "discrimination" against teachers.

The Administration does not fully accept the Warren dicta that separate schools impair development of personality in students. This contention, said one official, might apply equally to both races. Mental development is the primary objective of schools, and the Warren decision brings in multiple "social aims" as more basic. It sets up "social association" rather than mental talent as a basis in school progress.

John L. Lewis is complaining bitterly of T.V.A. "undermining the wage standards" of his union in "cut-throat purchases of non-union coal." He said these purchases are cutting miners' wages, "in some instances, as much as \$10 a day." The coal is for use in T.V.A.'s big steam plants.

Mr. Lewis renewed his controversy with Secretary of Commerce Weeks over cuts in the production costs of coal. Mr. Weeks said union mines might sell more coal if miners worked longer hours, with fewer fringe benefits and welfare levies. Mr. Lewis said this is an invitation to return to "slave labor" conditions.

Union leaders and spokesmen are coming around to the view they are going

to have to live with the Taft-Hartley Law for a long time to come. Repeal is out of the question, and the "danger," as they see it, is that it may be amended to make it more like the original Hartley bill, which was mangled by the Senate Labor Committee. Some of them feel they "would have been smart" to have taken Senator Taft's proposed amendments two years ago.

About 100 labor unions are joining in the pledge of A.F.L. and C.I.O. to halt raids on one another for members. But with three big A.F.L. and independent unions holding out, the pledge is less than a guarantee against raiding. It is in the nature of an experiment, and will reveal how amenable to discipline local leaders are from the top. The big non-signers are the C.I.O. Steelworkers, the A.F.L. teamsters and the Lewis coal union.

Substantial relief in taxes to persons who own stocks and receive dividends was voted by the Senate Finance Committee in its tax bill. The first \$50 in dividends would be exempt, and the taxpayer would deduct five per cent of the remainder of dividend income. In the second and remaining years the exemption would be \$100 and ten per cent.

The new Social Security bill as passed by the House extends old age retirement coverage to nearly ten million more persons. Included are self-employed farmers and farm workers, and self-employed professionals, except doctors. New annual payroll taxes will range up to \$12 for employees, and \$18 for self-employed persons. Nearly 70 million people are now in covered occupations.

Costs of old age assistance, unrelated to retirement, are increasing at an astonishing rate; up from \$119 million in 1937 to \$875 million last year. Under changes in the law since 1946, the government has stepped up its share to four-fifths of the benefits paid. This has been a powerful incentive to the states to put more people on the rolls, which have increased from 1,291,741 in 1937 to 2,608,898 in 1953.

The Senate and House together tacked on \$100 million more to the farm appropriation bill than was asked for by the Administration. The President asked for \$975 million as the top sum needed. The House added \$64 million, and the Senate put in \$44 million more. It is one of the largest money grants the farm program has ever had.

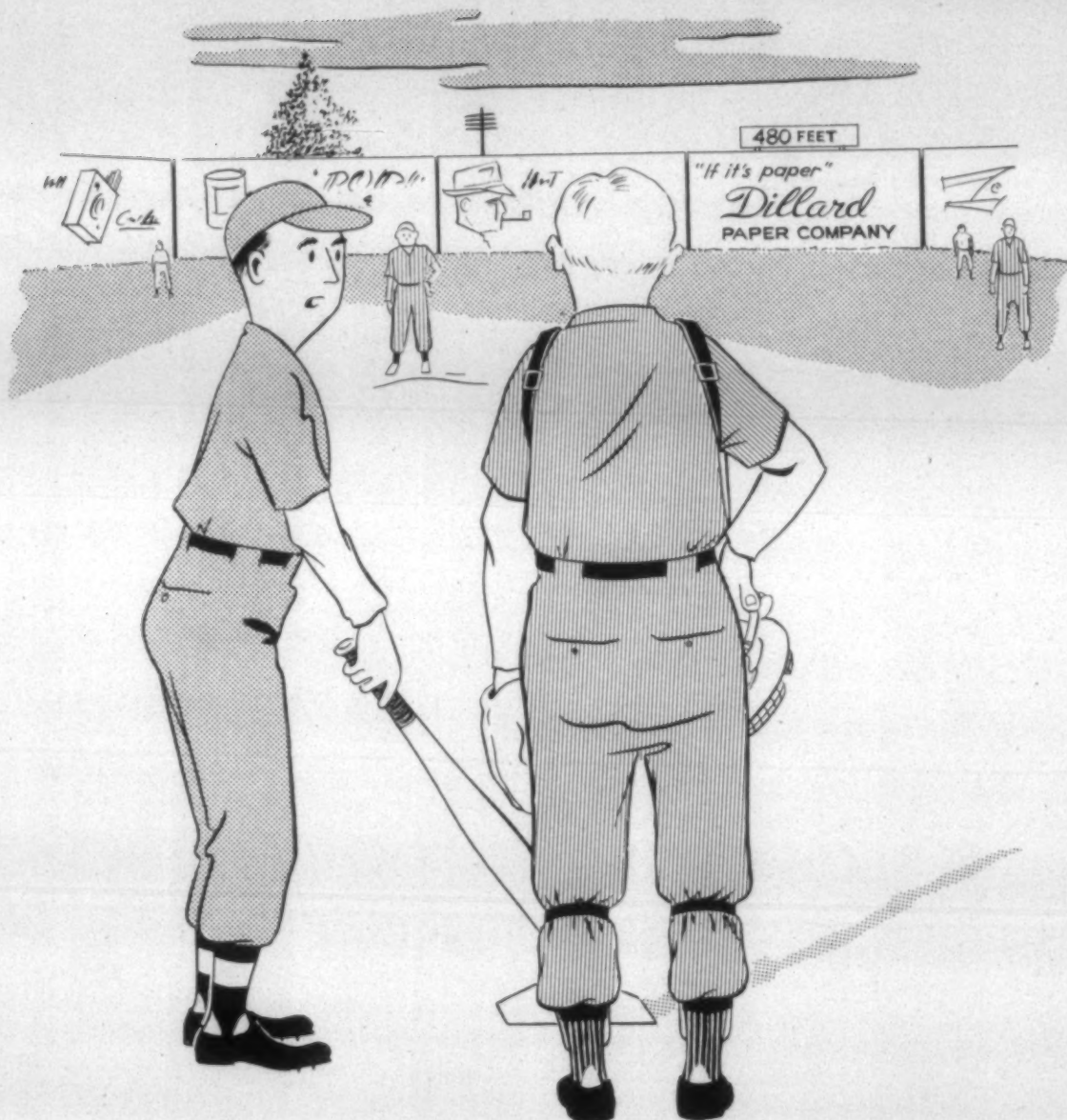
R.E.A. was given \$80 million more than was asked for by the Administration, but the Senate narrowly turned down \$35 million more. The President asked for \$55 million, but the House increased this to \$100. The Senate added another \$35 million, but rejected Senator Morse's motion to double it. Several senators argued R.E.A. was being given more than it could use, but the increases carried, 42 to 40.

House members were surprised when for the first time in many years African guests were entertained in its public dining room. Two ebony delegates of Nigeria to U.N., in ceremonial robes, were entertained at luncheon by Representatives John McCormick (D., Mass.), and C. B. Deane (D., N.C.)

Senator Byrd succeeded in getting a provision into the Senate's housing bill for the Controller General to audit books on all public housing projects. The Senate accepted Byrd proposals to tighten loopholes to prevent irregularities in housing loans. Also, loans for swimming pools, bird baths, outdoor broilers, dog houses and chicken coops are prohibited.

Total of 238 "security" risks among employees, including 114 suspected subversives, have been fired by Welfare Secretary Hobby from her department. She said the 114 were engaged in various degrees of subversive activity, and 124 non-subversives resigned under investigation of charges of immorality to untrustworthiness.





"This is the only place I know of where Dillard isn't as near as your telephone."

# *Dillard* PAPER COMPANY

GREENSBORO • CHARLOTTE • WILMINGTON • RALEIGH • WINSTON-SALEM • MACON  
ATLANTA • AUGUSTA • GREENVILLE • COLUMBIA • ROANOKE • BRISTOL • KNOXVILLE

1926

"IF IT'S PAPER"

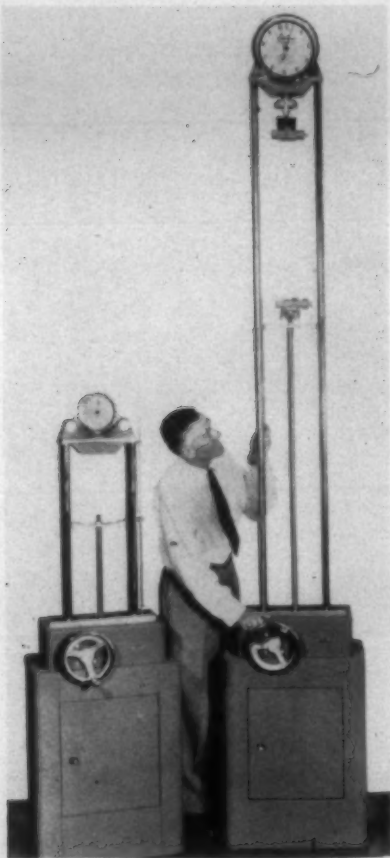
1954



# For the Textile Industry's Use

— NEW MACHINERY, EQUIPMENT AND SUPPLIES —

## Dillon Super-Tall Tester



Height of Model L is indicated by comparison to standard unit at left (W. C. Dillon & Co. Inc.)

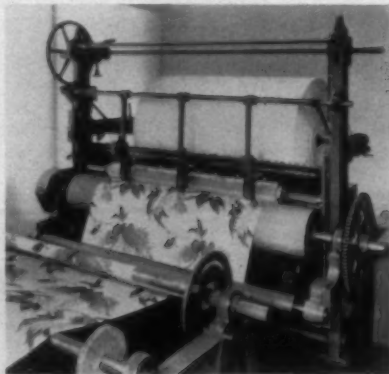
W. C. Dillon & Co. Inc. has announced its new super-tall Model L testing machine. The new tester has a daylight opening of 75" compared to the 40" opening on the previous model when the grips are opened to their widest point. The new model is said to be universal since it will test in tensile, compression, transverse and shear. It can be hand operated or motorized with 7 different capacities: 0-250, 0-500, 0-1000, 0-2500, 0-5000, 0-7500 and 0-10,000 lbs. Other special features include: variable speeds available; equipped with red maximum pointer; choice of either 5" or 10" diameter dial sizes; choice of gripping fixtures for rubber, cloth, metals, wire, adhesives, etc.; it is portable (stand measures 22" wide x 28 3/4" high x 15" deep); it is equipped with ball bearings at all strategic points; and it handles standard round, flat or special size specimens. The new tester is available with either pound or kilo calibration and is finished in polished chromium and gray crackle. (Request Item No. F-1)

## Shrinkage Control Compound

A new stabilization medium that offers lifetime shrinkage control of cellulosic fabrics—fabrics containing 50% or more viscose rayon or cotton, as well as all-cotton—available under the trade name of CET, has been announced by Onyx Oil and Chemical Co. A water-soluble, cellulose-reactive, heterocyclic compound, CET reportedly has little tendency to resinify and thus achieves unusual stabilizing effects on both rayon and cotton with little of the embrittling or stiffening effects ordinarily associated with resin treatments. According to the company, CET offers substantially complete stabilization to high temperature commercial laundering and, after initial shrinkage of zero to 2% in the first laundering, the fabric will not shrink further through an indefinite number of laundries for the life of the fabric. Another cited advantage of CET, is that the hand of the fabric is substantially unchanged during this finishing and it enables the finisher to produce any required hand by the addition of other finishes, with which CET has excellent compatibility. Also, this stabilizing action is imparted to rayon or cotton—even all-cotton—fabrics with little or no loss in tensile strength.

Formulation and application of CET in the mill is said to be simple and easy. Dissolving instantly in water, CET, together with its catalyst, are added to the water in predetermined amounts, precluding subsequent adjustments or control of pH. This procedure assures uniform results with a minimum of care. Furthermore, CET is applied on conventional finishing equipment. Complete data on CET is available through this magazine. (Request Item No. F-2)

## Rotary Cutter Winder

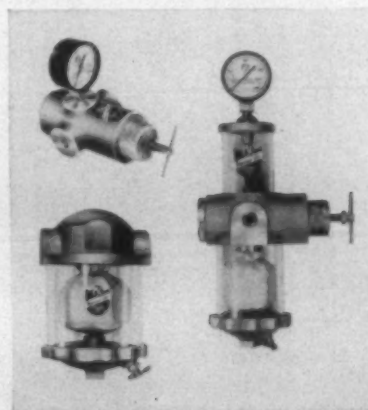


EMCO rotary cutter winder (H. W. Butterworth & Sons Co.)

The Emco rotary cutter winder, featuring a new cutting device and a double release, has been announced by H. W. Butterworth & Sons Co. The cutting device is made of numerous discs, 3" in diameter, with 24

teeth per disc. An electric motor drives the cutters, which can cut materials at high or low speeds or when material is stationary. The Emco will wind and cut rolls of 12" minimum diameter, so that a manufacturer can handle short-run batches. It can be made to wind a soft roll, and wind and cut marquisette, bagging, 10-oz. duck, open weave, or heavy and loosely woven materials. It can cut at high speeds of 125 y.p.m. or more, depending upon material, and can cut and start the cut end on a new shell when handling most of the plastic films, vinyl coated fabrics, nylon, etc. Further information on the cutter can be obtained by writing this magazine. (Request Item No. F-3)

## Air Control Devices



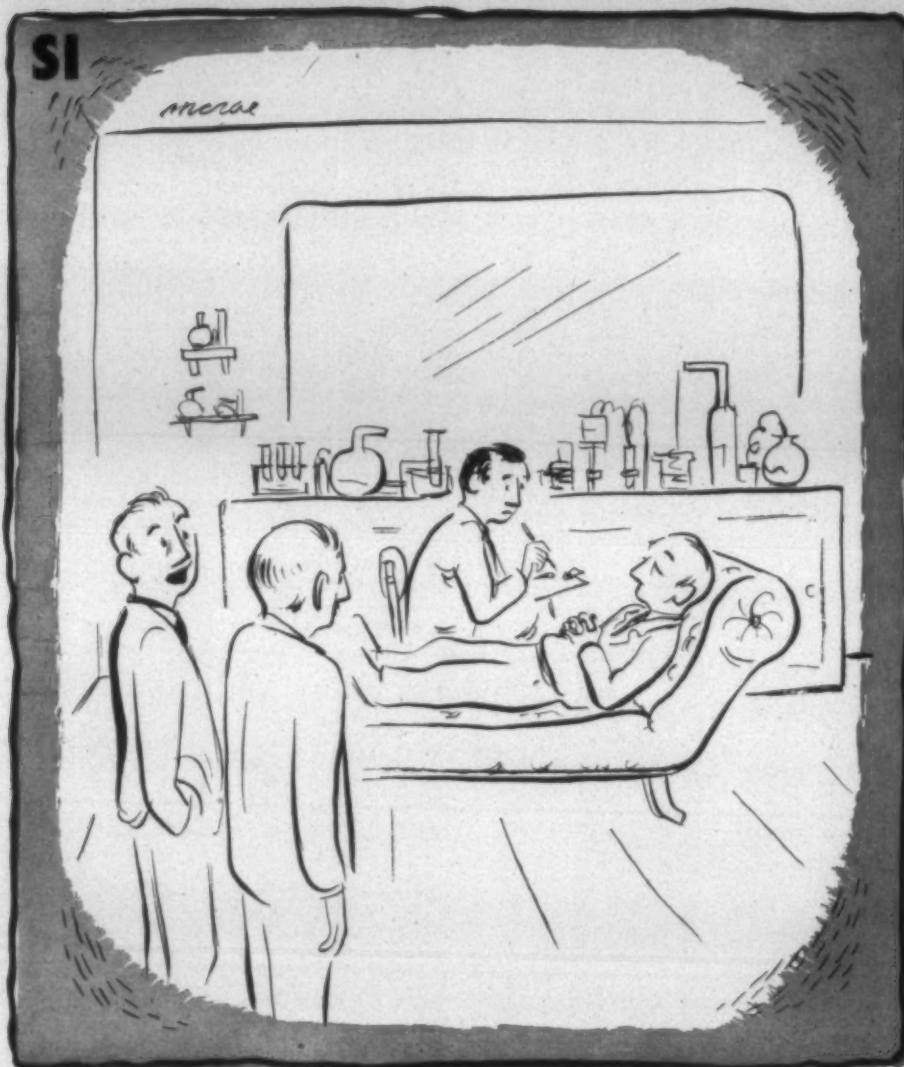
Universal air control devices (Perfecting Service Co.)

Perfecting Service Co. announces its new line of P.S.C. Universal Air Control devices, consisting of air regulators, filters, lubricators, automatic drain traps, quick coupling connectors, and Rotary air seals. New principles of operation are emphasized in this new line of products. The P.S.C. regulator employs a balanced piston principle with automatic bleed off, making possible sensitive adjustments to 1/4 lb. According to the company it automatically compensates for volume increase or decrease, permitting multiple applications without resetting. Large self-cleaning orifices reduce wear and maintenance.

The P.S.C. air filter uses the cyclone principle to remove free water and oil from air lines. Uniform filtering through tight woven wool filter element, it filters out particles as small as 30 microns in size. A plastic cylinder permits visual inspection of the filter. The P.S.C. air lubricator, having a venturi action, supplies atomized oil to pneumatic equipment. The amount of oil injected into the air stream is directly proportionate to the flow and volume of air consumed. The balanced pressure principle prevents flood-

SI

*merae*



"It's The Best Way to Get The Background of Customer's Trouble"

## SEYCO Products

### WARP SIZING

Softeners  
Binders  
Penetrants  
Ty-In Penetrants  
Shuttle Dressing

### WET PROCESSING CHEMICALS AND AUXILIARIES

Dye Assistants  
Penetrants  
Rewetting Agents  
Sanforized Fabric Oils  
Detergents  
Scouring Agents  
Softeners

### NIAGARA TWIST-SETTER

Yarn Conditioning  
Penetrants

It's smart to be SEYCO-analyzed!

If you have a WARP mind, call your SEYCO-analyst, who is always ready to discuss and help you with your WARP problems.

HEADQUARTERS FOR TEXTILE CHEMICALS

**SEYDEL-WOOLLEY & CO.**  
TEXTILE CHEMICALS  
748 RICE STREET • ATLANTA, GA.

PENETRANTS • SIZING • SHUTTLE DRESSING • SOFTENERS • ALKALIS  
• TWIST SETTER MACHINES •



#### FOR THE TEXTILE INDUSTRY'S USE—

ing. The company's new line includes a unique combination of air regulator, lubricator and filter in one compact assembly, simplifying installation, requiring only 2 connections. Additional information explaining features of these and other air products may be had by writing for Bulletin No. 75, in care of this magazine.

(Request Item No. F-4)

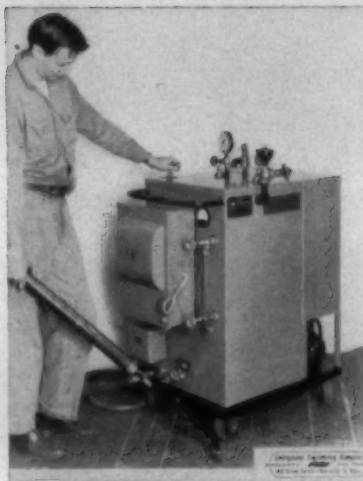
#### Ball Bearing Pulley

Seabrook Transmission Co. announces a new ball bearing improvement for spinning and twisting. It is a ball bearing production, builder, or traverse pulley. The pulleys are shipped assembled with sealed ball bearings and ground studs. They are designed for easy installation. According to the company, the pulleys have the advantages of always turning freely, of never requiring lubrication, and of lasting for many years without stud or pulley wear. Further information on this ball bearing application can be obtained by writing this magazine.

(Request Item No. F-5)

#### Steam-Jet Cleaner

Livingstone Engineering Co. has announced its new Steam-Jet Cleaner, Speedylectric Standard, designed for fast, in-the-plant cleaning of machine tools, conveyors, lift trucks and processing equipment. According to the company, the new model is



Speedylectric Standard model steam-jet cleaner (Livingstone Engineering Co.)

lower, lighter and more easily maneuvered in confined spaces than the original model introduced a year ago. The Standard is available for operation on 220, 440 or 550 volts, a.c. power. The operation of the steam generator, regulation of detergent flow and atomization with steam at the jet are all under finger-tip control of the operator at the steam gun or lance. The company points out that the Standard cleans and sterilizes safely, silently and without flooding the working area, utilizing steam pressures up to 200 p.s.i.g. and without coils,

tubes or heater elements to scale or burn out. According to the manufacturer, substantial savings result from the fact that one man with a Standard cleaner does the work of 5 men using ordinary brush and pail methods. Based on average commercial electric rates, the cost of the power is usually less than 40c per hour. Further information may be obtained by writing this publication.

(Request Item No. F-6)

#### Chart Paper And Ink

A new line of chart paper and recording inks designed to meet increased demands from an automation-minded industry for greater accuracy, faster recording speeds and broader applications of recording has been announced by the industrial division of Minneapolis-Honeywell Regulator Co. The chart paper is said to provide up to 100% greater accuracy in recording data. Primarily this is accomplished by controlling the dimensional stability (expansion and contraction changes affected by humidity variations) of the paper. The new paper has also been specially sized so that the new inks will produce a clean, accurate record and will not "feather" (a fuzzy line caused by overabsorption of ink). Honeywell guarantees that the new chart paper will be free from holes, dirt particles or similar defects. The recording inks are designed to carry the dye into the paper but not deeply enough to start "feathering" or to break through the paper fibers. This is accomplished by precisely regulating the absorption and evapo-

## BUTT-SEAMING SEWING THREAD

For Cloth Room Stitchers and  
Bleachery Sewing

**SIGNAL THREAD COMPANY**

James Building, Chattanooga, Tennessee • Phone 7-9591

Walter T. Forbes, President • David Saunders, Vice President

CHATTANOOGA • CHARLOTTE • DALTON • DETROIT

ALL  
NUMBERS  
CARRIED  
IN STOCK  
FOR  
IMMEDIATE  
DELIVERY

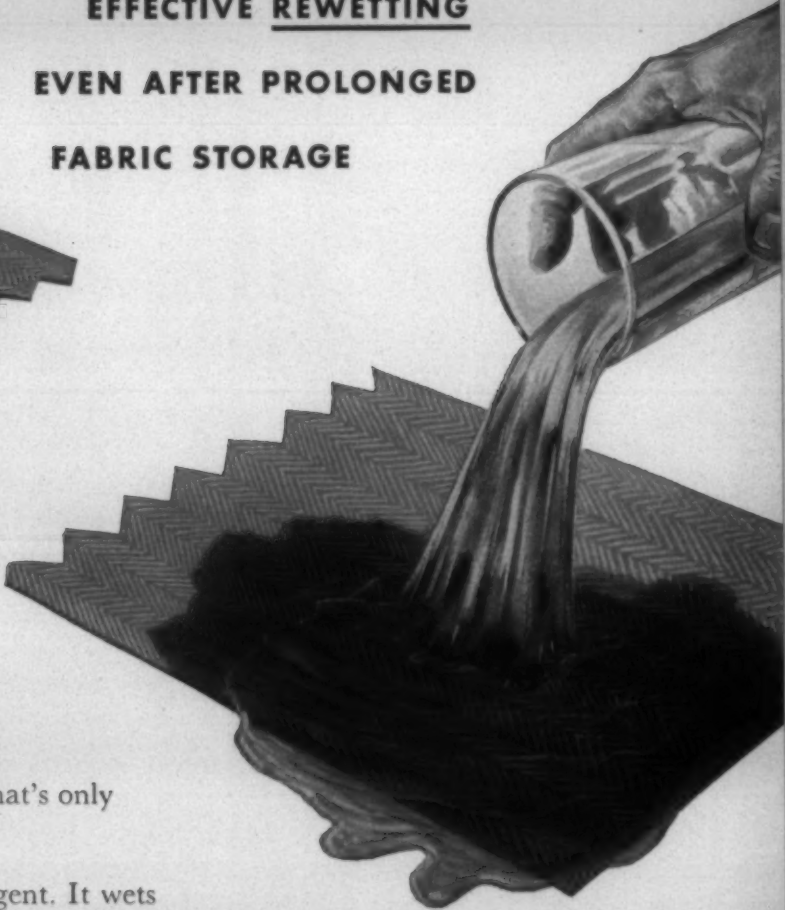






# TRITON GR-5

THIS NEW WETTING AGENT  
ALSO GIVES YOU HIGHLY  
EFFECTIVE REWETTING  
EVEN AFTER PROLONGED  
FABRIC STORAGE



TRITON GR-5 is not only soluble in water in all proportions but is stable—particularly to lime and magnesium salts—and electrolytes. And TRITON GR-5 is economical, too. But that's only half the story.

TRITON GR-5 is an excellent *rewetting* agent. It wets back after it has dried into the fabric, permitting high absorption under normally difficult conditions, and maintaining fabric absorbency through prolonged storage.

What's more, TRITON GR-5 puts a real sales feature into towelings. They are extra absorbent *when new*—don't need usual pre-use washings housewives complain about.



CONSIDER THE SPECIAL FEATURES  
OF THIS ECONOMICAL NEW WETTING-  
REWETTING AGENT; THEN CALL YOUR  
NEAREST ROHM & HAAS OFFICE.

CHEMICALS



FOR INDUSTRY

**ROHM & HAAS  
COMPANY**

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

*Representatives in principal foreign countries*

TRITON is a trade-mark, Reg. U.S. Pat. Off. and in principal foreign countries.

## FOR THE TEXTILE INDUSTRY'S USE—

ration qualities of the ink. A feature of the new ink is the addition of a preservative to combat bacterial growth. This is said to add years to the life of the records. The division has also added three new colors to their line—a new "true red" shade, a special black ink suitable for blueprint reproduction and a new olive green shade.

(Request Item No. F-7)

## Indicating Contactors

Winterburn Mfg. Co. has introduced a new model, No. 1025, of its Dazic direction and zero-speed indicating contactors. The new unit, which can also be adapted as a plugging switch, carries a higher amp rating (10 amps at 125 V. a.c.; 5 amps at 250 V. a.c.) and is finding considerable application on all types of material processing and handling equipment. Used to indicate shaft rotation in either direction, the new Dazic's set of snap-action contacts actuate to make or break an electrical circuit as soon as shaft speed, on acceleration, reaches 20 r.p.m. Contacts remain actuated at any speed at or above 20 r.p.m. (through 5,000 r.p.m.) and, on decreasing speed, return to static position at approximately 12 r.p.m. Minimum driving torque required is 2 in./ozs. Switch body is constructed of machined plastic with a sturdy mounting base. To provide dust and lint protection, electrical contacts are housed in a snugly-fit spun aluminum cup fitted with a rubber grommet for

entrance to the contacts chamber. The unit is designed to withstand considerable vibration and operate satisfactorily within an ambient temperature range from  $-20^{\circ}$  F. to  $200^{\circ}$  F. Complete descriptive information is available from this publication.

(Request Item No. F-8)

## Spontane Steam Cleaner



Spontane steam cleaner (Turbo Machine Co.)

The Spontane steam cleaner, a machine reported to reduce the cost of cleaning textile equipment, will be manufactured and sold on a national basis by the Turbo Ma-

chine Co. The Spontane cleaner is portable and features Hydro-Therm Flow, a pre-heating arrangement which circulates incoming cold water around the stack and then to the water tank. This device makes it possible for the cleaner to convert cold water to 80 p.s.i. steam in 45 seconds. The unit operates at steam pressures from 80 to 125 p.s.i. and is made in 2 models, 120 and 180 g.p.h. capacity; it has automatic ignition and features an 84-ft. 1-piece coil. The Spontane can be used to clean and degrease machinery, floors, walls and windows, and can be used to clean and sterilize rest rooms and cafeterias.

(Request Item No. F-9)

## Recording Controller

A new line of process instruments including potentiometric and a-c bridge recorders and recording controllers has been announced by the General Electric Co. meter and instrument department. The instruments, designed for continuous measurement and control uninterrupted by periodic standardization, incorporate new measurement circuitry and components, according to company engineers. Foremost among the new features are a magnetic standard in the potentiometric system and a bridge-balancing unit in the a-c bridge system. Both models are available with either electric or pneumatic control, and are equipped with a unique centerless pointer that simplifies chart changing and leaves practically all of the chart exposed to view for easy reading. The reinforced steel case and die-cast

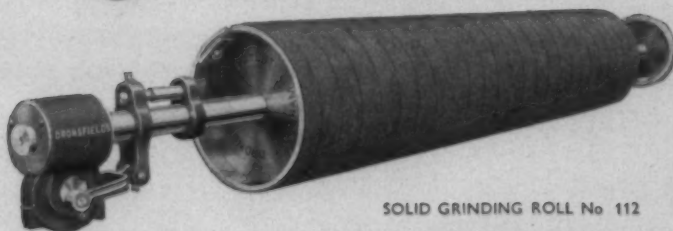
## 10,000,000 CARDING POINTS NEED PERFECT GRINDING ROLLS



THE  
CARD-GRINDING  
SPECIALISTS  
DRONSFIELD'S



TRAVERSE WHEEL GRINDER No 120



SOLID GRINDING ROLL No 112

Sole Agents for Dronsfield's Machinery:  
John Hetherington & Sons, Inc.,  
N. Marietta St. Ext., Gastonia, N. C.

**DRONSFIELD BROTHERS LTD · OLDHAM · ENGLAND**

**A  
LONG LIFE...  
AND A  
FAST  
ONE...**



# SUPRALANS

**FOR  
WOOL  
AND  
NYLON**

*for*

- **unvarying reproducibility of shades**
- **good to very good light and wet fastness**
- **shorter dyeing time**

The simplicity of the neutral dyeing method of application yielding level fast shades without the aid of a leveling agent now permits wool dyers to achieve results in quality which were not possible prior to the introduction of SUPRALANS.

Better tensile strength, preservation of fibre texture, equal exhaustion properties and uniformity of shade on various types of wool are assured factors which can be assumed with SUPRALANS.

A few minutes conversation with GDC technical and sales representatives will serve to convincingly explain the exceptional dyeing characteristics of SUPRALANS.

*From Research to Reality*



**GENERAL DYESTUFF CORPORATION**

A SALES DIVISION OF GENERAL ANILINE & FILM CORPORATION

435 HUDSON STREET • NEW YORK 14, NEW YORK

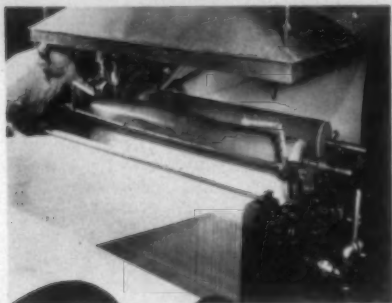
BOSTON • CHARLOTTE • CHATTANOOGA • CHICAGO • NEW YORK • PHILADELPHIA • PORTLAND, ORE. • PROVIDENCE • SAN FRANCISCO



## FOR THE TEXTILE INDUSTRY'S USE—

aluminum cover are sealed with Neoprene gasketing against dirt and moisture, and can be furnished for either wall or flush mounting. Chart speeds are 1, 4, 8, 12, and 24 hrs., and 7 days. Net weight of the products varies from 75 to 95 lbs. according to control form and measuring system. The units utilize a 120-volt, 60-cycle power supply. The potentiometer has a power consumption of 65 watts; the a-c bridge, 40 watts. (Request Item No. F-10)

## Dayco Slasher Rolls



Thoro-Size slasher roll as installed in a mill (Dayton Rubber Co.)

A revolutionary new slasher roll for faster and more uniform sizing of warp yarn has been announced by the textile sales division of the Dayton Rubber Co. According to the company, warp yarn can now be effectively

impregnated with the starch sizing solution without damaging or marking the fibers because of the long-lasting resiliency of the roll surface. Excess solution is "squeegeed" back into the tank. The rolls require no covering, do not have to be removed when changing sets and they are not affected by the sizing solution, oils or chemicals. The elasticity of the surface cushions the yarn and permits sizing operations to get under way as soon as the mill is started. The firm reports that Dayco Thoro-Size slasher rolls will give finer sizing for longer yarn runs and will pay for themselves within a year. The rolls can be resurfaced for matchless performance for two or three times the normal period, it is said.

(Request Item No. F-11)

## Seal-Less Centrifugal Pump

A seal-less centrifugal pump that incorporates distinct design advantages has recently been announced by the Chempump Corp. In addition to providing guaranteed leak-proof service, the new Chempump offers a welded construction that allows field dismantling and reassembly with no loss in leak-proof qualities. "O" rings, used in earlier models, have been completely eliminated. The company reports that the new Chempump has already been placed in service on applications ranging from butyl-acetate to titanium tetrachloride, and that include pumping hot sulfite liquor, hydrocyanic acid and molten sulfur, as well as many other hard-to-handle fluids. The com-

pany states that users report great satisfaction with the pump, experiencing no hazardous or expensive leakage, or contamination of fluids handled. Further details on the construction and performance of the Chempump may be obtained, without obligation, by writing to this magazine.

(Request Item No. F-12)

## Molded Rewind Caps



Re-wind caps are shown in place on a variety of tubes (Artmor Plastics Corp.)

After several years of development, tests and design changes, Artmor Plastics Corp. announces 1-piece molded re-wind caps which are designed to withstand all but the most deliberate attempts at breaking. The new design of the caps compensates for the usual variation in tube 'i.d.' Standard tubes, for which caps are now available, include one for the 2 7/8" diameter acetate package,



NEW METHODS FOR OLD!



Is Your  
Materials Handling  
ACCIDENTAL or ENGINEERED?

## MODERN MATERIALS HANDLING EQUIPMENT ENGINEERED TO FIT YOUR REQUIREMENTS

Cleveland Tramrail

Standard Conveyors

E-P Electric Trucks

Barrett Lift-Trucks,  
Portable Elevators

Nutting Floor Trucks,  
Rubber Wheels, Casters

Kewanee Coal Conveyors

DESIGN AND  
APPLICATION  
ENGINEERING

Without Cost or Obligation



MODERN HANDLING PAYS FOR ITSELF



123-125 West 29th St. — Phone 2-5026

CHARLOTTE, N. C.

# AMBERTEX

A VAT THICKENER FOR PRINTING



Photo courtesy of  
The United Piece Dye Works

## HOW MUCH OF YOUR PRINTING DOLLAR FLIES OUT OF THE WINDOW?

Check these savings against your present printing thickener:

- ✓ **SAVE**—AMBERTEX has better running qualities — permits higher speeds without streaks, scratches, or "spits" . . . less "seconds."
- ✓ **SAVE**—AMBERTEX is ready for use. Just blend with chemicals and water. It won't thin out with chemicals or dyestuffs.
- ✓ **SAVE**—AMBERTEX deposits a smooth, pliable film. It minimizes splitting on "Sheers" and other fragile fabrics.
- ✓ **SAVE**—AMBERTEX rinses out quickly and easily.
- ✓ **SAVE**—AMBERTEX gives you the higher color value of starch plus the smoothness and rinsability of natural gums.
- ✓ **SAVE**—AMBERTEX gives you far more production out of dye-stuffs than more expensive natural gums and other thickeners.

**YOU CAN SAVE** more of your printing dollar by using more AMBERTEX.

**National**  
STARCH PRODUCTS

Offices: 270 Madison Ave., New York 16;  
Boston, Providence, Philadelphia, Atlanta, and  
other principal cities.

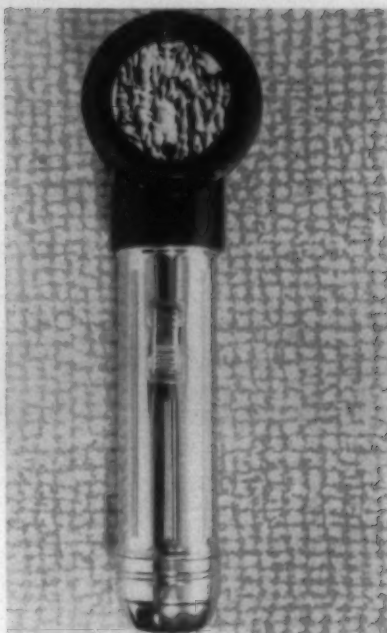
## FOR THE TEXTILE INDUSTRY'S USE—

and one for the 4" diameter Dacron unit. Other sizes are being tooled for, it is reported. Additional information may be obtained by writing this magazine.

(Request Item No. F-13)

## Flash-O-Lens Magnifier

The Abbeon Supply Co. announces its new, improved Flash-O-Lens. This instrument combines a 7-power Bausch & Lomb magnifying glass with a powerful light built into the handle, that clearly illuminates the magnified field of vision. The company reports that with this highly magnified field of vision, the inspection of textiles becomes a simple procedure. One of the features that the manufacturer stresses is its lightness and portability so that accurate inspections can be made in the darkest corners or out in the field where proper illumination is not easily available. It spotlights the work it magnifies. The new plastic housing for the lenses is made in such a form that the eye of the user can be placed directly over the work to be inspected. This is said to allow greater efficiency than former models previously available. The Bausch & Lomb lens system that has been incorporated gives a clearer, flatter field of vision and reduces distortion and aberration. The battery casing is made of steel with a hard industrial chrome finish. The complete unit is about 1" longer than a standard 2-cell flashlight.



7-power Flash-O-Lens (Abbeon Supply Co.)

It utilizes regular 5 & 10c store dry cell batteries. The unit pictured is the most popular 7-magnification size. Other units can be supplied for 5-power, 20-power and 40-power magnifications.

(Request Item No. F-14)

## Eriez Multi-Duty Magnet

Eriez Mfg. Co. has developed a new multi-duty magnet which it describes as a magnetic wonder wand that is no longer than a kitchen fork but has the grip of a monster. Eriez states that it moves quickly in and around machinery picking up small bits of iron, metal dust and dangerously sharp metal particles. Other uses cited by the company include using it as a skimmer or coolant cleaner, removing objects from bins or barrels, an underwater recovery magnet or as a powerful magnetic attractor in any inaccessible place. It is stocked in lengths ranging from 8 to 32" and carries a life-time guarantee. The magnet is also used as part of the Eriez Sweeperette, a rotary non-electric magnetic sweeper.

(Request Item No. F-15)

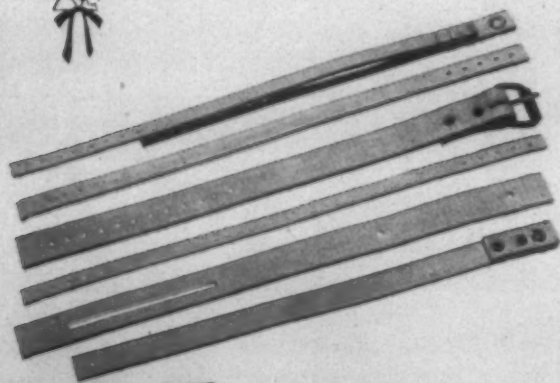
## Silicone Finish For Woolens

Dow Corning Corp. has announced a new silicone finish that is designed to give a "miracle fiber" finish to woolens and worsted. Identified as Dow Corning 105 Emulsion, the finish cures in 10 to 20 minutes at temperatures as low as 250° F. According to the company, the new emulsion makes fabric woven of wool feel even more desirable; adds more apparent bulk to many constructions; imparts a durable water repellency and a high order of resistance to staining by water borne soils; improves wrinkle resistance; increases flex abrasion resistance

COLONEL SLIP-NOT



## Longer Life -- Less Stretch -- Uniform Performance WITH SLIP-NOT NEOPRENE-IMPREGNATED BELTING!



**Web-Tex**

Finest webbing ever developed  
for tough harness strap usage

New!—and made for service. Webbing of highest-grade cotton, tightly woven . . . thoroughly impregnated and coated with neoprene. No raveling; controlled stretch; clean holes when punched.



**Nu-Tex**

Proved as ideal multi-purpose  
textile belting and strapping

Perfect where flexibility, light weight and low cost are paramount. Its resistance to oil, heat, water makes it the best material available for brake lining on high-speed looms.

**SLIP-NOT BELTING CORP.**

• First Name in Belting •

KINGSPORT

TENNESSEE



Keep them spinning clean and free



with

# Gulfspin

Gulfspin works three ways to keep spindles clean. First, it's oxidation stabilized to resist sludge formation. Second, Gulfspin prevents contaminants from depositing on spindle parts. Third, Gulfspin provides effective protection against rust, especially important in cast-iron bolsters where rusting causes bolster wear.

Because deposits are not a problem with Gulfspin, spindle vibration is kept to a minimum and dampening devices function normally.



And you reduce power costs with Gulfspin! Ordinary spindle oils often thicken after a few months of service, resulting in about one watt per spindle increase in power consumption. Not so with Gulfspin! This outstanding oil shows no increase in viscosity after many months of service.

Won't you give us a chance to prove the advantages of Gulfspin on at least one of your frames. Write, wire, or phone your nearest Gulf office and ask a Gulf Sales Engineer to call.



Gulf Oil Corporation • Gulf Refining Company  
Gulf Building, Pittsburgh 30, Pa.

# The Textile Shops

Acid Tanks	Coppersmithing	Picker Screens
Ball Bearing Journal Assemblies for Slashers and Dry Cans	Cowl Ventilators	Perforated Metal
Bleaching Tanks and Tubs	Cylinders	English Wire Cloth
Card Screens	Spinning	Galvanized Wire
Repaired, New	Spooling	Pneumatic Conveying Systems
Card Screen Bars and Ribs	Twisting	Quill Cans
Card Screen Lickerins for Cotton and Rayon	Drip Pans	Rolls of All Types and Sizes
Chemical Tanks	Dye Kettles and Vats (New)	Size Kettles
Condensers	Dry Cans	Tanks
Condenser Screens	New and Repairs	Waste Screens
Conveyors	Driers	Special Machines
Pipes and Returns	Filters	Custom Built
	Misc. Sheet Metal Work	

SPARTANBURG, SOUTH CAROLINA, U. S. A.

## FOR THE TEXTILE INDUSTRY'S USE—

from 30 to 65%. The company also points out that oily or greasy stains may easily be spot-cleaned from silicone treated fabrics of wool, synthetic or blended fibers without leaving a tell-tale solvent ring. The emulsion is said to be fully compatible with most conventional resinous finishing solutions. Available in the form of a stable, 40% silicone emulsion, its material cost is comparable to that of other Dow Corning textile finishes. (Request Item No. F-16)

## Nylon Delusterant

A new type of delusterant for nylon tricot fabric has been developed by the Vikon Chemical Co. after several years of work in co-operation with leading finishers. The Vydul products are cationic resin dispersions which can be exhausted in a dye beck or padded. They produce a finish resistant to yellowing and with excellent durability to washing. For the Vydul Technical Bulletin and product samples write to this publication. (Request Item No. F-17)

## Turbo Yarn Setter



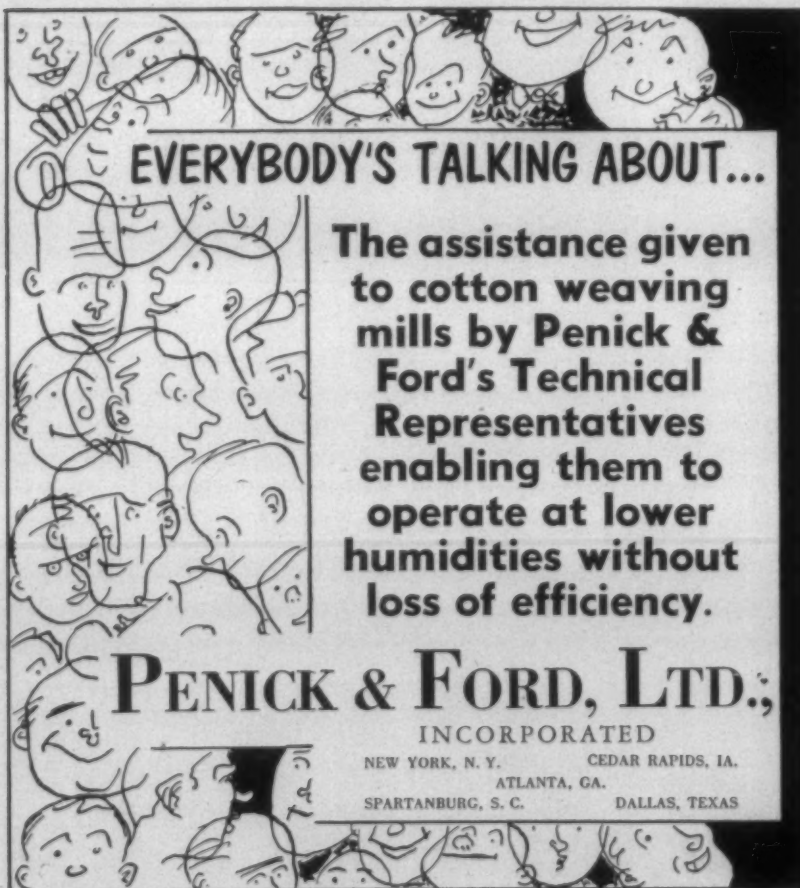
Yarn setting and processing unit (Turbo Machine Co.)

A new yarn setting and processing machine, which is reported to provide quick and thorough penetration of nylon yarn packages through alternating cycles of steam pressure and vacuum, has been announced by Turbo Machine Co. Turbo claims that steam pressure alone is slow to reach the core of a yarn package, because of air and moisture pockets, while the new Turbo machine exhausts the steam and starts a vacuum cycle after the oven temperature has reached its high point. Time is saved because proper setting is effected in minutes instead of hours, and because there are two bobbin carriers, according to Turbo. A small production model introduced earlier has been supplemented with a larger model capable of processing up to 300 lbs. of yarn at one time on the bobbin-loaded carriers.

(Request Item No. F-18)

## Drape-Flex Stiffness Tester

Fabric Development Tests, which recently introduced the Appearance-Retention Tester, now announces the commercial availability of the Drape-Flex Stiffness Tester. Developed for the Clothing Supply Office of the

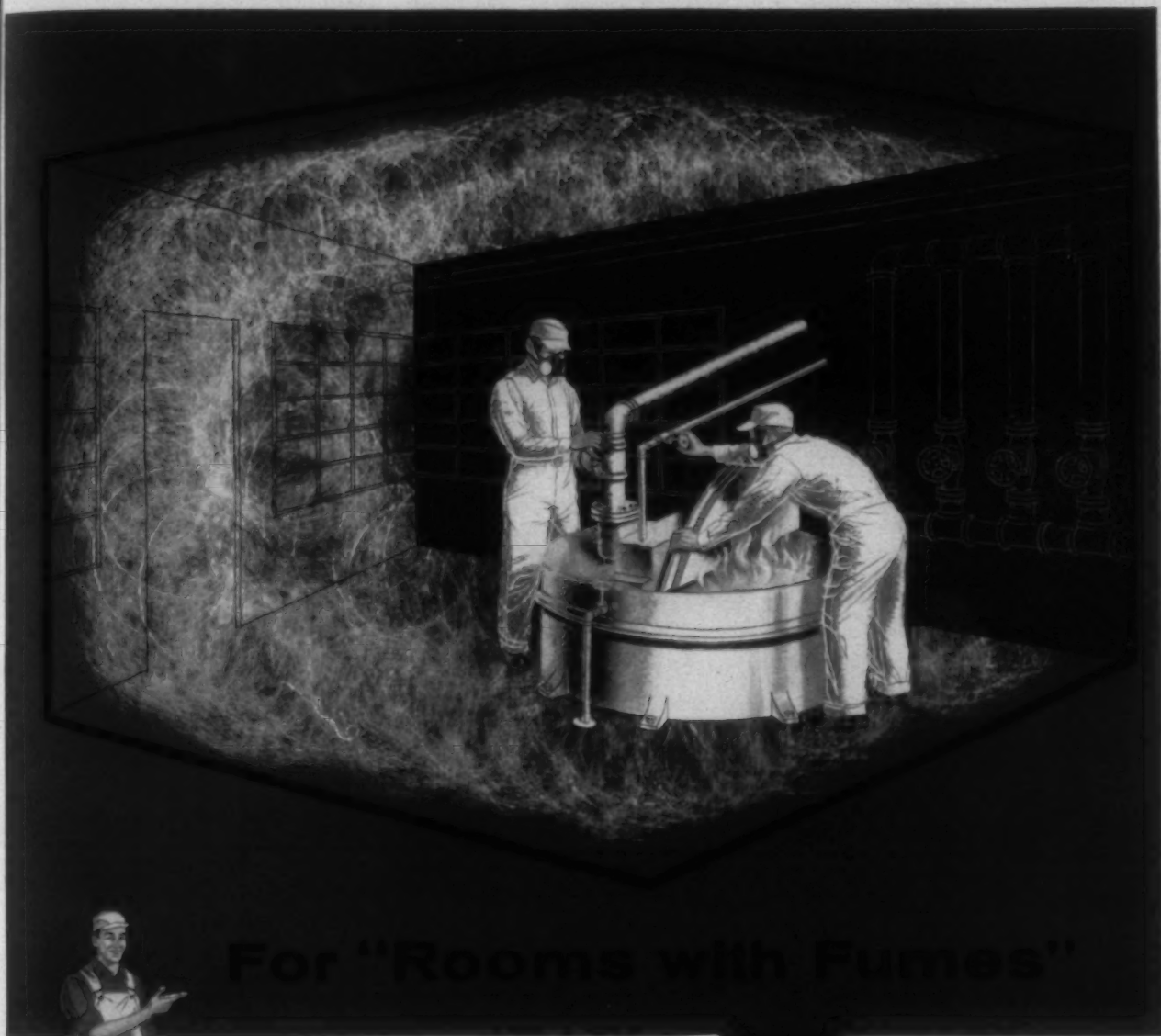


**EVERYBODY'S TALKING ABOUT...**

**The assistance given to cotton weaving mills by Penick & Ford's Technical Representatives enabling them to operate at lower humidities without loss of efficiency.**

**PENICK & FORD, LTD.,**  
INCORPORATED

NEW YORK, N. Y.      CEDAR RAPIDS, IA.  
ATLANTA, GA.  
SPARTANBURG, S. C.      DALLAS, TEXAS



## For "Rooms with Fumes"



Here's a sure cure for the destructive action of acids, alkalis, fumes, gases and other corrosive agents which make maintenance such a costly problem in certain areas of almost every industrial plant.

It's Barreled Sunlight *Acid and Alkali Resistant Coating* — the new specialized protective finish for plant interiors and equipment that has licked the destructive action of fumes and corrosion in "problem areas" of many well-known plants throughout the country.

Needs no special primer . . . easy to apply with either brush or spray gun . . . dries hard in 2 to 3 hours so that two or more protective coats can be applied the same day. Barreled Sunlight Paint Co., 5-F Dudley St., Providence 1, R. I.



If you have "rooms with fumes", write today for free color card and sample for testing under your actual conditions.

# Barreled Sunlight *Paints*

In whitest white or clean, clear, wanted colors, there's a Barreled Sunlight Paint for every job



# WANT SOMETHING? ADVISE US, IF YOU—

- ¶ Need further information about new products described in this section.
- ¶ Desire copies of free literature described in next section.
- ¶ Want additional facts about items or services advertised anywhere in this issue.
- ¶ Require clarification of or comment on any matter discussed in a technical article.

*Then, use the coupon below to advise us of your wants. Be sure to fill in your company's name and your position on the coupon, along with the proper address.*

Reader Service  
TEXTILE BULLETIN  
P. O. Box 1225  
Charlotte 1, N. C.

June 1954

Please send me further information and/or free literature described in the following item(s) carried in "For The Textile Industry's Use" and "For The Mill Bookshelf" sections (list key numbers that appear at end of each item):

Please send additional information about the following products, services or subjects advertised or discussed in this issue:

PAGE NO. \_\_\_\_\_ SUBJECT: \_\_\_\_\_

PAGE NO. \_\_\_\_\_ SUBJECT: \_\_\_\_\_

PAGE NO. \_\_\_\_\_ SUBJECT: \_\_\_\_\_

PAGE NO. \_\_\_\_\_ SUBJECT: \_\_\_\_\_

Your Name: \_\_\_\_\_  
(Print or write legibly)

Your Title: \_\_\_\_\_ Mill: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ ( ) State: \_\_\_\_\_

## FOR THE TEXTILE INDUSTRY'S USE—

Navy, the new device measures how a fabric drapes under its own weight and how stiff it feels when flexed in the hand. Test results have been reported to show good correlation with fabric hand and puckering in sewing. A recent Army report (*Textile Research Journal*, Oct. 1953) has shown the tester to be sensitive, accurate, simple and very easy to operate. Using a new removable slope extension, stiffness has been measured for materials ranging from unsized nylon marquisette to reinforced sheet plastic. Because of its simplicity and ease of operation the tester is considered ideal for use in fabric development, mill and finishing plant control, and acceptance testing. Further information may be obtained by writing this journal. (Request Item No. F-19)

## Soluble Vat Brown Dye

A new soluble vat brown dye, which extends its present line of leuco ester colors to 10, has been announced by the dyestuff department of American Cyanamid Co. Calco Soluble Vat Brown BY is the recent addition to the company's line of colors. Calco Soluble Vat Brown BY is a versatile printing color suitable for roller or screen printing on cottons and viscose alongside azoics, pigments or other soluble vats where acid aging is used, according to Cyanamid. The manufacturer states the new dye has excellent leveling properties for the dyeing of cotton, rayon and linen dress goods and shirtings. It also shows a solid surface appearance when used on tightly woven cotton fabrics, slub weave rayons and mercerized broadcloths. Cyanamid also states the new soluble Vat Brown BY is effective on wool where excellent light and wet fastness properties are required. Other soluble vat dyes offered by Cyanamid are gray, blue, brown, jade green, orange, pink, scarlet, violet and yellow. (Request Item No. F-20)

## Corrugated Staple Fiber

To supplement their metallic staple fiber line, the Metlon Corp. now has available a corrugated staple fiber. The characteristics produced by the new method of manufacturing the staple greatly simplify the spinning of Metlon with all other fibers, according to the company. It also reduces loss of the fiber in the spinning process. (Request Item No. F-21)

## Handy Fire Extinguisher

In increasing its line of already over 100 plant maintenance products, United Laboratories Inc. announces the addition of a new small hand-operated fire extinguisher. Small in size, this new extinguisher is said to be extremely effective on any type of small "flash fire" within the plant or office. The device is small enough to hold in one hand and is operated by pressing a button at the top of the container. A stream of extinguishing fluid can accurately be directed for a distance of 8 to 10'. It is especially designed to keep handy on work benches, in desks and other strategic locations about the plant, ready for instant use. Further details may be had by writing this journal. (Request Item No. F-22)

# HEAVIER *and* HUSKIER

## the Southern

### DURAWELD SHUTTLE

... has been used successfully for years by leading mills everywhere and is no longer considered experimental.

Its added and consistent weight provides a shuttle 10% heavier than the usual dogwood or fibre covered shuttle, thus reducing "Throwing out" and the consequent breakage due to this action.

**Duraweld** . . . is Southern's trade name for shuttles made with dogwood centers having

one or two sides of *Stehide* or *Compreg*. The two materials become an inseparable unit through an unusual action of molecular adhesion.

**Stehide** . . . is Southern's trade name for high density phenolic impregnated cloth laminate.

**Compreg** . . . is Southern's trade name for high density impregnated wood laminate. The Duraweld construction is applicable to all types of shuttles and provides—

Greatly strengthened side walls . . . Elimination of wood defects . . . Will not heat up . . . Use of less loom power due to greater weight . . . Resists splitting . . . Moisture proof in side walls. All of these plus many more advantages make the cost of Duraweld less over a period of time.

Consult your nearest Southern Shuttle Field Engineer for the information you require.

## SOUTHERN SHUTTLES

A DIVISION OF STEEL HEDDLE MFG. CO.

PARIS, GREENVILLE, S. C.

It's Southern for Service and Delivery





# For the Mill Bookshelf

## — NEW CATALOGS, PAMPHLETS, BOOKLETS AND OTHER LITERATURE —

### Analysis Of Alkalies

"The Analysis of Alkalies," a new technical and engineering service bulletin, is being offered by the Solvay Process Division, Allied Chemical & Dye Corp. Solvay reports that in this fourth edition the scope and arrangement of the previous editions have been retained, but many new and up-to-date additions have been made. The analytical factors have been recalculated to the basis of the 1952 International Weights. New colorimetric methods for iron and nickel, and procedures for the analysis of caustic soda-sodium nitrite compounds have been included. Other new additions include: new methods for trace metals; new methods for iron determinations; and a new method for determination of sodium nitrite. The new reagents and standard solutions necessary to accomplish the determinations by the new methods have also been added. Copies of the new technical bulletin are being offered by the company without charge. Address request calling for Technical and Engineering Service Bulletin No. 9 to this publication.

(Request Item No. F-23)

### Fork Truck Operator Training

Mercury Mfg. Co. has produced a 4-page reprint titled "Proper Operator Judgment Cuts Cost of Fork Truck Operations." This discussion of correct methods of operator training should prove valuable to any firm which makes use of fork trucks. Copies may be obtained without charge from this magazine.

(Request Item No. F-24)

### Hobbs Slitters And Rewinders

Publication of a revised folder on the improved Hobbs slitters and rewinders is announced by Hobbs Mfg. Co., makers of a complete line of modern converting machinery. Described as low-cost, lightweight units in use by hundreds of converters to handle almost every type of material, these machines were formerly known as Jacques slitters and rewinders. In concise form, the new folder points out that the Hobbs equipment can be used to economically perform many slitting and rewinding operations, or used to supplement the converter's high production machines. Because of the moderate investment involved, it is said that even part-time operations can be performed at a savings. Another economy factor is said to be the better control of inventory that is possible through the use of these machines. Detailed photographs highlight all the important features of the Hobbs slitters and rewinders. All operating, electrical and tension-adjustment controls are shown to be located conveniently within the operator's reach. It is pointed out that loading, thread-

ing, unloading and shifting from one job to another can be accomplished quickly. Many modern control devices are said to be available, such as an automatic web guide to control hard-to-handle slippery materials and to conserve expensive materials.

The folder states papers, plastics, laminations, and fabrics can be handled efficiently by use of the proper cutters. To provide unusual versatility, Hobbs offers cutters in contact, razor and shear types. They can be used alone, it is stated, or in a combination of contact and razor or contact and shear. All cutters are said to be easily adjusted and made of highest quality special alloy steel. The nitralloy main shaft is described as having a hardened and ground finish to assure accurate cutting and long service without scoring. The main drive of Hobbs slitters and rewinders is through an electric clutch to provide slow, even starts without grabbing. Rewind arbors are offered either with or without individual tension control. Rewind frictions are shown with safety-set adjustment for handling a wide range of materials, even light and flimsy plastics. Micrometer tension adjustments are possible even while the machine is in operation, it is stated. Rewind capacity for most materials is said to be 15-18" diameter. Rolls up to 40" diameter and 300 lbs. maximum weight can be carried by the welded steel parent roll stand, according to the folder. The unwind shaft is described as having both lateral and forward adjustments, as well as a friction brake with easy hand-knob and screw-setting tension adjustment. Pressure rolls are shown to maintain proper feed pressures on various materials and to help feed to the slitting roll. Copies of this new folder will be sent without charge by writing to this journal.

(Request Item No. F-25)

### Heated and Cooled Gages and Valves

Data Unit No. 237 covers Jerguson Gage & Valve Co. special-purpose heated and cooled gages and valves which solve the problem of getting accurate level readings of liquids that boil or surge . . . or liquids that are heavy and don't flow at normal temperature. Special design and construction features are described and illustrated.

(Request Item No. F-26)

### Stapling Machines

Booklet on operation and specifications of the International Staple Knight stapling machine series has been published by International Staple & Machine Co. Data on the staplers, which close corrugated or fibre cartons, includes illustrations and diagrams, with an explanation of the operation of Retractable Anvil stapling heads used on all of the company's stapling equipment. Among major points listed are speed of

operation, security and pilfer-proof features of the fastenings, concealed clinching, ease of loading and operating. Applications of the machines, for either light or heavy packaging needs, as well as sizes of cartons that each machine can handle, are detailed.

(Request Item No. F-27)

### Packaged Steam Generators

Bulletin MH 3-54, Union Iron Works, gives detailed coverage to Union Type MH packaged water tube steam generators which are furnished for oil or gas firing or both, with automatic, semi-automatic or manual combustion controls. Included are: cutaway illustrations, installation photos, tube arrangement layouts, a photo-sequence story of actual shop assembly construction, auxiliary equipment available and a well-defined dimension table for 13 standard sizes ranging in capacity from 10,000 to 40,000 lbs. of steam per hour.

(Request Item No. F-28)

### Manual Handling Equipment

A handy, pocket-size catalog illustrating and describing its complete line of special manual handling equipment, is now available from the Kennett Equipment & Machinery Co. The catalog details such products as pin trucks, dye house trucks, conditioning trucks, platform trucks, dolly trucks, round cornered trucks, work boxes, and dozens of other examples of specially designed trucks, racks and containers. Products are manufactured out of stainless steel, monel metal, angle iron and aluminum. More than 40 different units are pictured together with complete specifications, construction and design features, and application data. One section is devoted to details of the company's important new type caster for use where continuous wet conditions are encountered. The caster is rust-proof and self-lubricating; wheels are equipped with a bronze bearing impregnated with a lubricant that operates on a stainless steel spanner bushing. According to the manufacturer, this combination eliminates the rust hazard and insures free rolling even under severe and continual wet service. Copies of the catalog may be obtained, without cost, through this magazine.

(Request Item No. F-29)

### Morse Torque Limiters

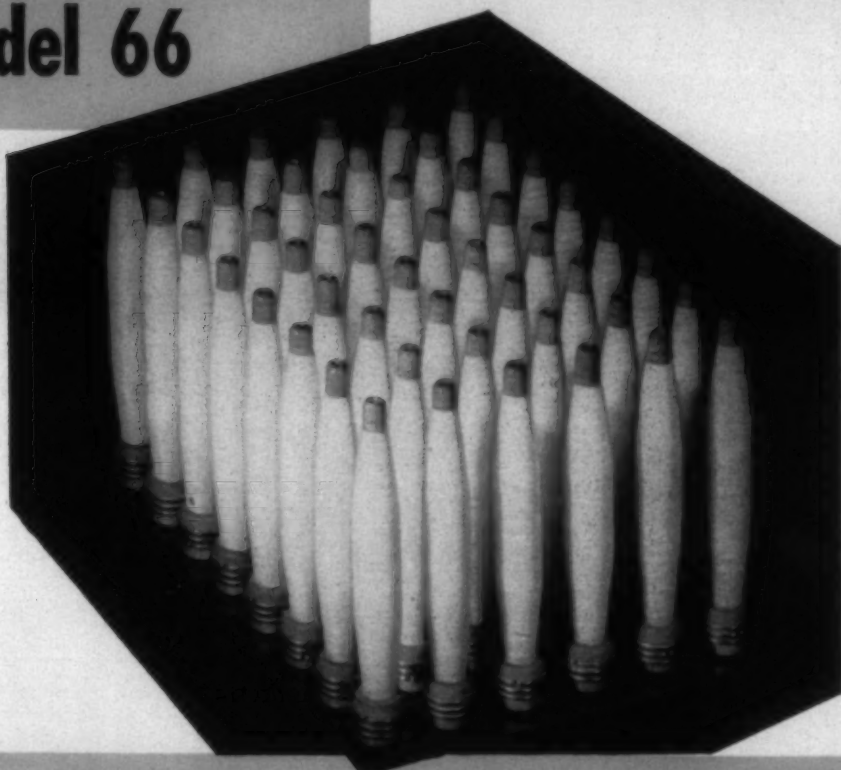
A new 8-page, illustrated 2-color catalog (C14-54) describing Morse Torque Limiters, compact, adjustable slip-clutch devices that provide automatic over-load protection for machinery drives, is now available from Morse Chain Co. Complete design and operation information is given in the catalog as well as specification tables for a line of



# Foster-Muschamp

## Model 66

**AUTOMATIC FILLING WINDER**



***It makes bobbins like these 300% faster***



Model 66 with Centralized Automatic Bobbin Replenisher and Automatic Pinboarding Attachment. Write for data on this highly flexible new machine, suitable for many different types of mills.

Note the uniformity and practically perfect build of these bobbins — wound at a spindle speed of 15,000 rpm while preserving the original quality of the yarn. One operator can handle 5000 net pounds of yarn per 8 hour shift at a cost of about 19 mills per pound of yarn quilled.

Because operation is so fully automatic, production is the highest and winding cost is the lowest yet achieved. Operator's only duty is to keep the magazine creel loaded and thread up. Everything else is automatic — including conveying empty bobbins to spindles, starting and stopping spindles, doffing of full bobbins and conveying them to pinboards, or bobbin boxes.

Standard machine is 32 spindles. Different counts or colors can be run on different spindles of the same machine at the same time, and it will wind equally well all types of yarn and fibers — from coarse counts to finest, filament or spun.

## **FOSTER MACHINE COMPANY**

Westfield, Massachusetts, U. S. A.

Southern office — Johnston Bldg., Charlotte, N. C.

# Orr

## SLASHER CLOTH

**Special Chemical Treatment  
Definitely New and Better**

Slasher Cloth is an important maintenance item in a cotton mill. With the introduction of ORR Slasher Cloth with Special Chemical Treatment, many of the problems which have pestered the slasher room foreman have been eliminated.

The slasher room foreman, in order to satisfy the superintendent and the cost department, must have available a Slasher Cloth that:

1. Dresses the yarn properly.
2. Holds its width. No shrinkage.
3. Maintains level production performance.
4. Starts fast—lasts long.

ORR Special Treated Slasher Cloth maintains uniform dressing properties, resists bacteria and steam degradation, maintains dimensional stability. Discuss your Slasher Cloth problem with your ORR representative.

**THE ORR FELT & BLANKET CO.**  
**PIQUA, OHIO**

#### DISTRIBUTORS:

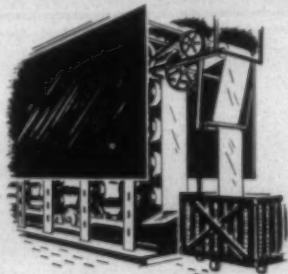
J. S. Fallow & Co., 279 Union St., New Bedford, Mass. • Oliver D. Landis, 718 Queens Rd., Charlotte 7, N. C. Telephones: 3-0958, 3-4557 • Fred E. Antley, Box 802, Greenville, S. C.

**Industrial Woolens**



*by Orr*

**NEW** **silicate**  
**for J-box**  
**bleaching**



# STARSO®

Starso is especially purified which insures even oxygen release for consistent bleaching power. This maximum utilization of peroxide saves you money.

Starso has extra alkalinity that reduces the need for additional caustic in the J-Box and Starso's purity has another advantage—it eliminates costly shut-downs for scale clean-up.

*We invite your inquiries about this new PQ® Silicate tailor-made for J-Boxes.*

**PHILADELPHIA QUARTZ COMPANY**

1170 Public Ledger Building  
Philadelphia 6, Pa.



**PQ® Silicates of Soda**  
METSO® DETERGENTS

#### FOR THE MILL BOOKSHELF

11 standard models having torque capacities ranging from 20 to 620 ft.-lbs. A 2-page spread is devoted to illustrations and descriptions of specialized adaptations of Morse Torque Limiters in combination with flexible couplings, as well as other devices including noisemakers, dual drives and extremely compact models. Typical applications are listed in a table on the back cover.

(Request Item No. F-30)

#### Dyestuff Circulars

General Dyestuff Corp. announces the release of the following new circulars: G-766, Fastusol Red L4BL—CF; G-771, Celliton Fast Pink RF New—CF; G-772, Celliton Fast Yellow GGLL—CF; Celliton Fast Yellow 3RLL—CF; G-773, Alizarine Cyanine Green GWA—CF. Copies may be obtained through this magazine.

(Request Item No. F-31)

#### Qualities Of Dynel

The ability of Dynel to blend with both natural and synthetic fibers to produce fabrics having real consumer merit is described in a new booklet by the Textile Fibers Department of Carbide and Carbon Chemicals Corp., a division of Union Carbide and Carbon Corp. Entitled, "For the Ideal Marriage—Dynel and Rayon," the booklet, newest in the series of informative pamphlets covering the important contributions made by Dynel to various segments of textile manufacturing, is designed for use by mills and converters. Dynel's ability to offer new textures, longer wear, lasting press, greater strength, pleat and crease retention to rayon blends is emphasized.

(Request Item No. F-32)

#### Hev-E-Oil Burner

Big fuel savings is the theme of the new 2-color bulletin AD-131 issued by the Cleaver-Brooks Co. in describing the new "4" Hev-E-Oil burner recently announced to the public. Illustrations showing compactness and simplicity of design along with informative copy are designed to bring to the reader the many new engineering features incorporated in this all-new "4" burner. Such advancements as greater efficiency, new starting ease, new fuel flexibility (easily adjusted for burning regionally varying fuel oil from No. 1 through No. 5 heavy oil) and new simple installation are a few of the money saving improvements pointed out in the bulletin. For further information write Cleaver-Brooks Co. in care of this magazine requesting Bulletin AD-131.

(Request Item No. F-33)

#### Air Compressors

Joy Mfg. Co. announces the release of a new 36-page Bulletin A-72 on Joy Series 100, Class WN-114 heavy-duty air compressors for industry. The bulletin contains complete information on construction and operation of the compressor. Illustrated are 7 models of the compressor as a single unit

Here's how you can

## INCREASE the AMOUNT of SLIVER in coiler cans

GOSSETT technicians were among the very first to come up with a practical, sure way to greatly increase the amount of sliver per can . . . and do it at a moderate cost.

### HERE'S HOW

We'll convert your 10" and 12" comber and card coilers to 14" or 15" and drawing frame coilers to 14" in diameter and to 36" or 42" in height. Just imagine what this will do to increase the amount of sliver per can! What's more, and as the photograph shows, you'll get a perfect lay of sliver in the can.

The GOSSETT MACHINE WORKS has already converted the coilers in a number of leading Southern textile mills. Records show a very substantial increase in the amount of sliver per can. It will pay YOU to look into this amazing innovation.



**Note this:** We show here the percentage increase of sliver when a conversion is made. Take, for example, a 12" x 36" coiler. We'll convert it to any one of the following sizes and here is what you'll get:

Up to This Size	Percentage of Sliver Increase
14" x 36"	60% to 65%
14" x 42"	100% to 105%
15" x 36"	100% to 105%
15" x 42"	120% to 125%

This shows the perfect lay of the sliver in can after coiler conversion from a 12" x 36" size to a 15" x 42" size.

### What we do with COILERS

1. We convert 10" and 12" comber and card coilers to 14" and 15" and drawing frame coilers to 14" in diameter and to 36" or 42" in height.
2. We manufacture all sizes of coilers for all makes of combers, cards, and drawing frames.
3. We manufacture parts for all sizes and makes of coilers.



This coiler was converted from a 12" x 36" size up to a 15" x 42" size, increasing the amount of sliver in can by 120% to 125%.

# GOSSETT

B. W. GOSSETT, President  
D. W. SMITH, N. C.-Va. Representative

E. C. MASON, Sales Manager

## MACHINE WORKS, INC.

GASTONIA, NORTH CAROLINA



## FOR THE MILL BOOKSHELF

for displacement capacities from 1,186 to 1,948 C.F.M. as well as twin units which furnish up to 3,896 C.F.M. The Joy WN-114 is a 2-stage, double acting compressor of 4-cylinder semi-radial design. It is available with flange-mounted, V-belt, or direct

connected drive. Features include honed, replaceable crosshead and cylinder liners, patented Dual Cushion valves, and full force-feed lubrication. (Request Item No. F-34)

### Materials Handling

Fibre Specialty Division, National Vulcanized Fibre Co., announces publication of a new materials handling equipment catalog (Catalog No. 54) which describes and illustrates over 40 types of trucks, special trucks, tote boxes, dolly trucks, nesting—stacking—straight sided—tapered—reverse tapered and hopper front trays, utility receptacles, barrels and roving cans . . . practically all made of the company's brand of hard vulcanized fibre. The equipment in this fit-your-pocket type 24-page catalog is illustrated in color, with brief, descriptive text indicating uses and giving construction details and special features for each item shown. The company points out that the equipment described in the catalog is merely representative of a wide variety of materials handling equipment manufactured by Fibre Specialty Division—many items are custom built to customers' specifications to meet special needs. Copies of Catalog No. 54 may be had by writing this publication.

(Request Item No. F-35)

### Restoring Siliceous Zeolites

The Philadelphia Quartz Co., manufacturers of PQ soluble silicates, announces the publication of Data Sheet No. 49, entitled, "How Can I Rejuvenate Spent Siliceous Zeolites?" Although published primarily for laundry personnel, the information is useful to anyone operating a synthetic siliceous zeolite softener. Operators accustomed to the practice of salt-bath regenerating will find the information useful for further restoring or rejuvenating broken down zeolite. Provided the physical structure of the zeolite is undamaged, an inexpensive and relatively simple method of treatment with "N" silicate of soda restores a portion of the depleted silica for extended zeolite life in the

softener. A table for quick calculation of cubic feet of zeolite in popular size softeners is included with the step-by-step directions for rejuvenating. Instructions are also included for washing dirty zeolite beds with silicate of soda. This data sheet is available by written request on company stationery to this publication. (Request Item No. F-36)

### Cast Bearing Bronze

How Asarco 773 continuous-cast bearing bronze (SAE 660) saves money in factory maintenance and production is explained in a new 6-page bulletin published by the continuous-cast products department of American Smelting and Refining Co. The bulletin also describes in detail the patented Asarco continuous-cast process by which a variety of bronze alloys are cast into rods, tubes, and shapes of many different diameters and profiles. This process exclusively produces as mill products a large group of copper-base alloys which were formerly available as foundry castings only. The mill products are long, straight, uniform, sound and with closely held dimensions. Where quantity production is involved, they are adaptable to fabrication or automatic screw machines. For your free copy write to this journal.

(Request Item No. F-37)

### Process Timer

An 8-page bulletin on a new process timer has been announced by the General Electric Co. Designated GEC-1223, the 2-color publication describes in detail the operation, advantages and applications of the company's new type TSA-18 process timer. Included also are connection diagrams for typical applications, as well as installation and cut-away illustrations, prices, specifications, and dimensions. (Request Item No. F-38)

### Textile Machine Lubrication

Especially prepared for the textile industry is a new 16-page 2-color bulletin offered



Dozens of shapes and sizes

### BETTER YARN AT LESS COST

- Fewer ends down—some mills report 27% less
- Use two numbers lighter travelers for higher-strength yarn
- Polished aluminum blades stronger than steel—much lighter—cost less
- Non-slotted blades mean less wear on yarn, less lint, fewer slubs
- 7,000,000 in use by more than 400 mills

Coleman Co., Box 3587, Greenville, S. C.  
Harry A. Haynes, Box 1724, Chaff., Tenn.  
(Ga.-Ala.)

Matthews Equip. Co., 93A Brdwy., Prov., R. I.  
Don O'Hair, Box 8254, Charlotte 8, N. C.

### WHITEHEAD ENGINEERING CO.

P. O. BOX 488  
EMORY UNIVERSITY, GA.



**HIGH QUALITY  
COMBED and  
CARDED  
KNITTING and  
WEAVING  
YARNS**

**BEAMS, CONES  
TUBES, WARPS**

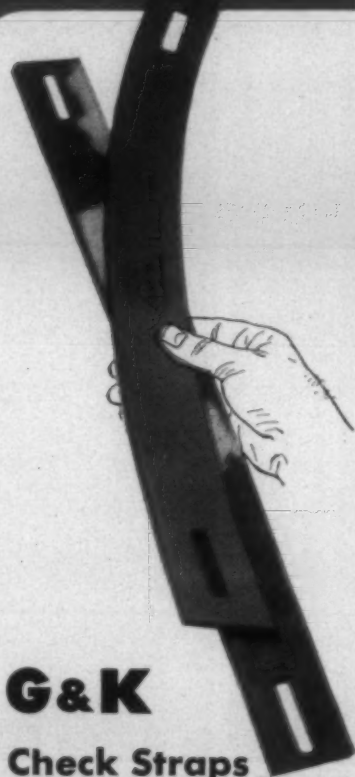


**MARTHA MILLS DIVISION, Silvertown, Georgia**

LARGE PRODUCTION . . . UNIFORM QUALITY . . . LATEST MACHINERY

• SOUTHERN SALES AGENTS: **Walter T. Forbes Co.** PHONE 7-9591, CHATTANOOGA, TENN.

the helping hand  
to better weaving



## G&K Check Straps give you checks that don't bounce!

Flexing back and forth twice a second — hour after hour — these straps *cushion* the picker stick... help bring the shuttle to a *smooth* stop without shock or kick-back.

That's because G&K Orange® Line Straight and Curved Check Straps are made of Hairitan® Leather — famed for its tough fibre structure, its *live* resiliency — and its ability to perform uniformly for years.

**FREE CATALOG:** Shows the great Orange Line of Textile Leathers for weaving — also Aprons and Tapes.

**GRATON & KNIGHT COMPANY**  
Worcester, Massachusetts  
**DIXIE LEATHER CORPORATION**  
Albany, Georgia



Estab. 1851

**Orange® Line**

T-3

**TEXTILE LEATHERS**

by the Bijur Lubricating Corp. The bulletin is exclusively devoted to the lubrication of textile machinery and covers automatic lubrication of blending, picking, carding, combing, drawing, roving, spinning, twisting, spooling, knitting and weaving machinery, and includes a full, illustrated page on each type of machine. The bulletin describes and illustrates how one oil pump per machine force-feeds a controlled volume of oil through a single-line distribution system to meter-units which apportion the oil in correct amounts to each bearing. The lubricator (pump and reservoir), distribution system and meter-units are fully explained and major advantages of the Bijur system are discussed. These are said to include increased machine production, oil savings, elimination of product spoilage, improved plant safety, ease of installation, and positive oil protection against dust. For copies of the new Bijur bulletin—"Metered Lubrication for Textile Machinery from Fibre to Fabric"—write to this publication.

(Request Item No. F-39)

### Liquid Chlorine And Bleach

A new technical and engineering service bulletin, "The Analysis of Liquid Chlorine and Bleach," is being offered by the Solvay Process Division, Allied Chemical & Dye Corp. Solvay reports that this third edition has been substantially enlarged and now contains 72 pages of text, tables, charts and indexes. New additions or revisions include the adding of new reagents, indicators and standard solutions to the section dealing with these subjects, supplemental methods for determination of metallic impurities and revised methods of tests applied in the analysis of chlorine and hypochlorite bleaches. The company is offering copies of this bulletin without charge. Requests for Technical and Engineering Service Bulletin No. 12 may be sent to this journal.

(Request Item No. F-40)

### Fork Truck Stability

A reprint titled "The Relationship Of Fork Truck Stability To High Stacking" has been produced by Mercury Mfg. Co. The trend to higher and higher stacking for increased utilization of warehouse and factory floor space makes the subject of fork truck stability more important than ever before. This literature presents the engineering considerations in the ability of a fork truck to move loads vertically to great heights. Copies are available at no charge through this magazine. (Request Item No. F-41)

### Foster Winders

Foster Machine Co. has announced the availability of circulars on the new Foster Model 202 automatic cone winder and the new Foster-Muschamp Model 66 automatic filling winder. The circulars describe in detail the new features of the two machines which were recently exhibited for the first time at the American Textile Machinery Exhibition at Atlantic City, N. J. Free copies of the circulars are available through this magazine. (Request Item No. F-42)

# PULLINGRIP



## G&K Leather Belting wraps the pulleys for more production-power

**It Grips** — Leather's resilient, frictional surface grips the pulley face, causing belt and pulley to move as one power unit.

**It Pulls** — Like a python, leather belting is strong, flexible, with controlled stretch — *wraps* the pulleys and gives peak performance on *any* drive.

**It's 3-Dimensional** — Leather's millions of fibres are interlaced in all directions to form the tough *three-dimensional* structure so necessary for PULLINGRIP — *developed to the highest degree in G&K Leather Belting.*

Call your G&K Industrial Supplies Distributor for flat, round, link and V-belt, belt lacing, dressings, cements, packings and specialty leathers... made by Graton & Knight, the world's largest manufacturer of industrial leather products.

Catalog 101 shows RESEARCH®, HEART OAK and SPARTAN® Leather Belting — also special belting for Stripper, Spindle and Universal Winders. It's free.

**GRATON & KNIGHT**  
*Company*  
WORCESTER, MASSACHUSETTS

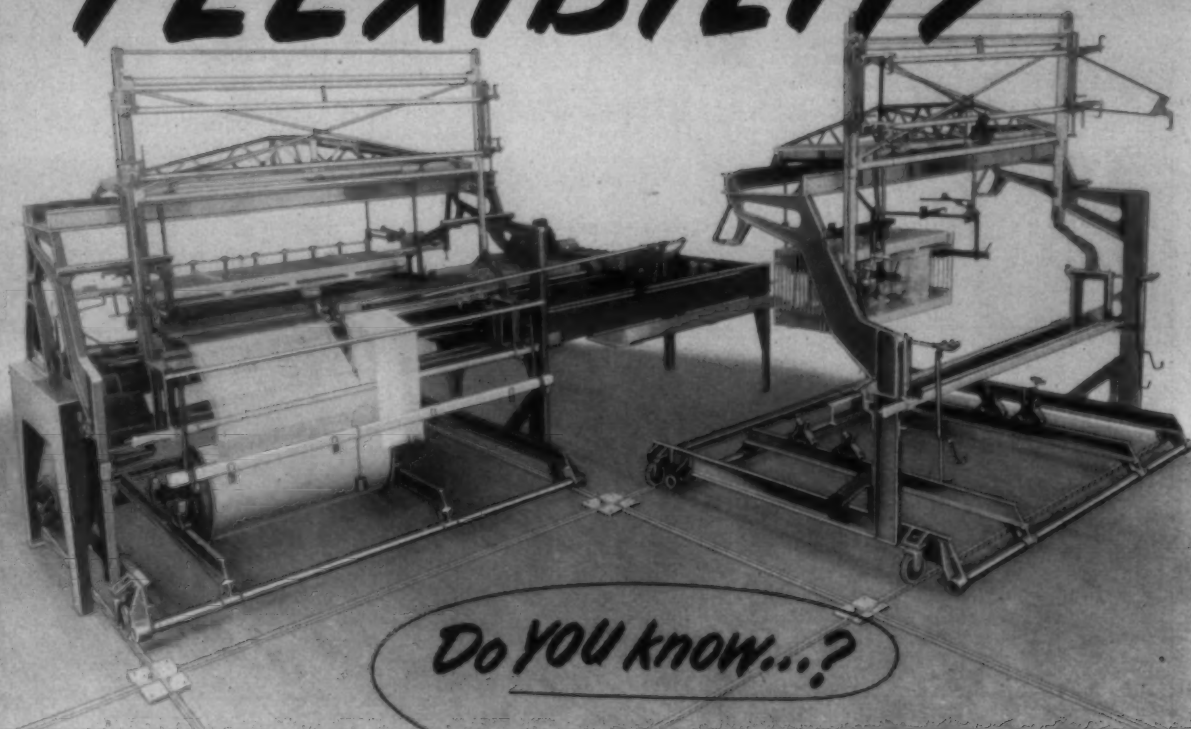
**Engineered**



Estab. 1851

**LEATHER BELTING**

# FLEXIBILITY



**BARBER-COLMAN**

## WARP DRAWING MACHINE



- That these machines will draw a range from 15 denier to 350, or the equivalent in other counts.
- That style changes are *easily* made.
- That you can vary the materials being drawn with *no time lost*.
- That varying the width of warp involves *no* mechanical changes.
- That heddle frame lengths may vary.
- That a machine will accommodate heddles from 11" to 17" deep.
- That beams up to 32" head can be handled.
- That while one warp is drawing, you can be loading or unloading others.
- That a machine will draw from flat sheet or leased warp, two of either or any combination.

**AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES**

**BARBER-COLMAN COMPANY**  
ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A.

GREENVILLE, S. C., U.S.A.

MANCHESTER, ENGLAND

MUNICH, GERMANY

**INDIA**

Batliboi & Company  
Forbes Street, Fort  
Bombay, India

**MEXICO**

J. Rabasa  
Isabel la Catolica 45-913  
Apartado 7348  
Mexico D.F., Mexico

**BRAZIL**

Quimanil S.A. Anilinas  
& Representacoes  
Rua Glicerio 537/547  
Caixa 5658 e 3431  
Sao Paulo, Brazil

**JAPAN**

Nanko Bussan K. K.  
Sampin Building  
Kitakyutaro-machi 3-chome  
Higashi-ku, Osaka, Japan

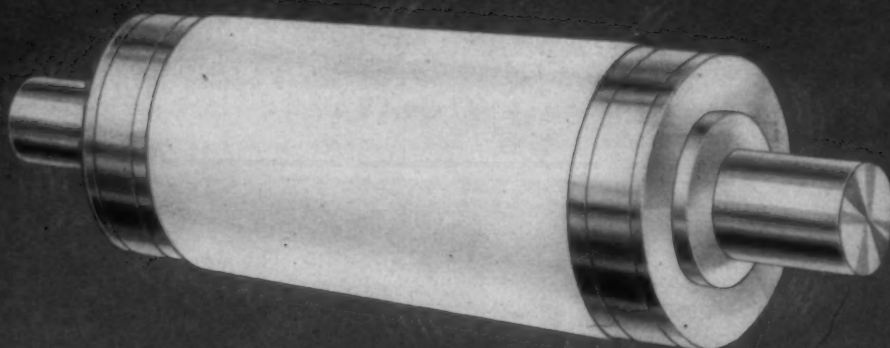
**MIDDLE EAST**

Arlind Corporation  
65 Bedford Street  
Stamford, Connecticut



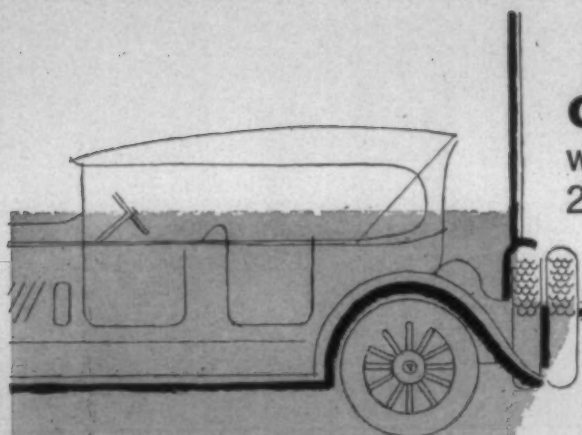
# **"HOLYOKE"**

## **CALENDER ROLLS**



# **HOLYOKE MACHINE COMPANY**

**CALENDER ROLLS for the PAPER and TEXTILE INDUSTRIES  
WATER FILTRATION EQUIPMENT  
HOLYOKE, MASSACHUSETTS**

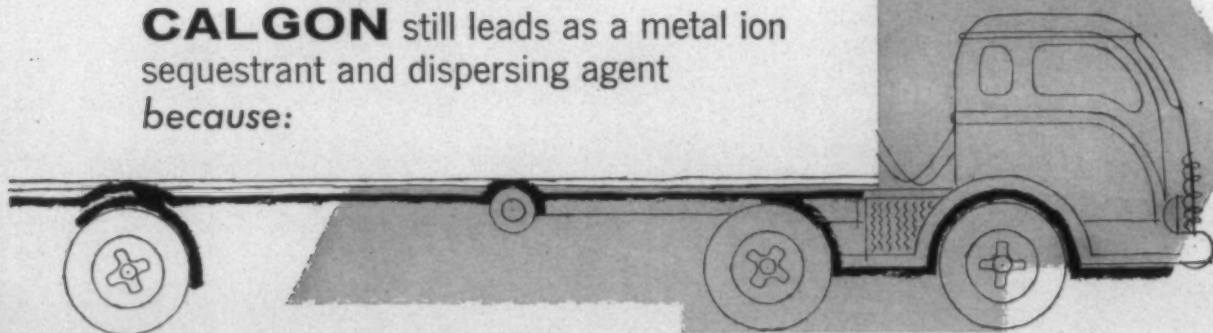


# 1933

**CALGON\*** won instant approval when introduced to the textile world 21 years ago.

# 1954

**CALGON** still leads as a metal ion sequestrant and dispersing agent because:



CALGON softens more water for less money than any other sequestrant available.

CALGON synergizes the detergency of soap. Many sequestrants do not have this property, while others are less effective than Calgon. Calgon also improves the cleaning power of synthetic detergents.

CALGON disperses pigments such as clay, calcium carbonate, titanium oxide and others used in cotton and rayon finishing.

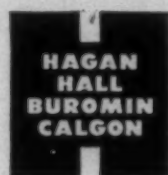
CALGON solubilizes and disperses dyestuff for clearer, brighter dyeing of textiles.

CALGON prevents the contamination of water from iron corrosion products. Using very small quantities of Calgon, this "Threshold Treatment"† is the most economical method for eliminating iron contamination from any source in textile plant water supply.

The experience gained through years of service to the textile industry is at your disposal. Tell us about your particular water problem or write for the authoritative and helpful bulletin "Calgon Data for the Textile Chemist."

\*Calgon is the registered Trade Mark of Calgon, Inc. for its sodium phosphate glass (sodium hexametaphosphate) products.

†Fully licensed for this use under U.S. Pat. No. 2,337,856.



## CALGON inc.

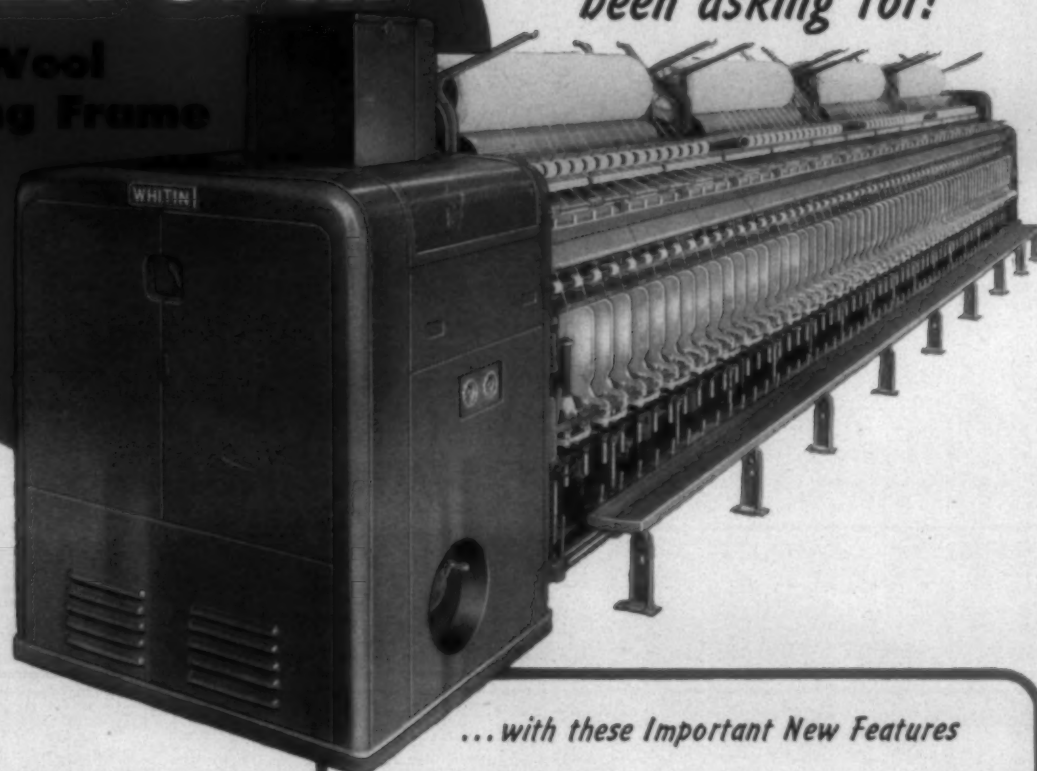
A SUBSIDIARY OF HAGAN CORPORATION  
HAGAN BUILDING  
PITTSBURGH 30, PENNSYLVANIA

# The WHITIN FLEX-SPIN

Wool  
Spinning Frame

*New*

*...the frame mill men have  
been asking for!*



*...with these Important New Features*

The new Whitin FLEX-SPIN Wool Spinning frame with its many improvements and attractive features is certainly the finest machine ever offered to the wool industry for *profit-making* operations. In this one frame is incorporated every practical, desirable, and helpful improvement and accessory that the most forward-looking and efficient mill could desire.

This new machine has more than 20 major improvements, all of them important for their contributions to improved yarn quality, increased frame efficiency, reduced maintenance costs, or lowered production costs.

- Streamlined Design
- Instantly Variable Frame Speed
- Instantly Variable Twister Head Speed
- Tachometers for Front Roll and Twister Head Speeds
- Four Speed Shift Transmission for Quick Twist Change
- New Twister Head Design
- Spring Weighting on Front Rolls
- Oil Free Head End Operating Condition
- Instantaneous, Simple Reverse-Twist Control
- Lubrication Greatly Simplified
- Increased Traverse Motion Stroke
- 12" Traverse for Paper Tubes

**Whitin**

*Send for descriptive literature to  
Dept. A—Whitin Machine Works*

**MACHINE WORKS**

WHITINSVILLE, MASSACHUSETTS  
CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.



No one would ever dream of asking each member of a surgical team to name the medical school he attended. If anyone ever should, he'd probably find that no two of these skilled, highly-trained men had been graduated from the same institution. To Americans everywhere, the name or location of a physician's or surgeon's medical school doesn't make the slightest difference. That's because we have only one nation-wide "quality" of medical education. And it's the best in the world.

You see, each of our accredited medical schools lives up to the high principles established by the Council of Medical Education of the American Medical Association, whether it's in Connecticut or California. The standards of medical training are truly national, applying to every school and every doctor. Any threat to those standards is a threat to the future health and safety of your family, your business, your community, your country.

Together the nation's 79 medical schools make up a great national resource—like the Red Cross, the Community Chest and other vital public services.

Today, the very basis on which their high standards rest is threatened. Lack of funds menaces the teaching and research programs of all the schools. Thus the problem is national, and can only be solved on a national basis, if an adequate supply of well-trained doctors, surgeons and medical technicians is to be assured. Find out what your firm's stake in medical education is. Write for details and learn how you can help.

## all-american team



### NATIONAL FUND FOR MEDICAL EDUCATION

#### FACTS YOU SHOULD KNOW ABOUT MEDICAL EDUCATION

- There are only 79 accredited medical schools in the United States.
- They train 82,000 undergraduates, specialists and technicians and graduate 6,500 doctors annually.
- It costs from \$10,000 to \$12,000 to train a doctor today.
- Tuition fees, raised 84% over 1940, cover about 20% of cost.
- In the past decade medical teaching budgets have risen 143%; administration and plant operation 150%.
- The medical schools need \$10,000,000 annually in additional income to maintain present standards and train the necessary number of doctors required for America's growing population.
- *ALL* 79 medical schools can be aided by a *single* gift to the National Fund for Medical Education.
- Contributions are distributed through annual grants according to a schedule approved by the medical schools.
- The National Fund is a voluntary, non-profit organization approved and supported by the American Medical Association and the Association of American Medical Colleges.

*For complete facts on the crisis facing medical education write to*

The National Fund for Medical Education,  
2 West 46 Street, New York 36, New York

# Another Proved Performer from West Point

## THE MULTI-CYLINDER SLASHER

with 5, 7, 9, or 11  
30" CYLINDERS

In actual mill operations, the versatile WPF&M Multi-Cylinder Slasher has proved it can consistently produce a high-quality warp on a wide range of spun and filament fibers at high speeds and low operating costs.

The Multi-Cylinder Slasher is designed for and furnished with a superior slasher drive . . . the mill-proved multi-motor drive which completely eliminates the friction clutch and friction compensating devices *along with friction maintenance.*

This all-electric drive provides a smooth constant tension wind-up of the loom beam and packs more yards on the loom beam. Either mechanical or electrical type tension control between cylinders and size box, and between head end and cylinders, is available.

The WPF&M Multi-Cylinder Slasher is one of the complete line of modern Slashers manufactured by the West Point Foundry & Machine Company—specialists in Slasher Room machinery and equipment.

We will be glad to furnish you with complete details without obligation.



### WPF&M WARP PREPARATION MACHINERY

AIR-DRI SLASHERS  
MULTI-CYLINDER SLASHERS  
CYL-AIR SLASHERS  
CALLAWAY SAMPLE SLASHERS  
WPF&M HI-SPEED 4 CYLINDER SLASHERS  
STANDARD 2 and 3 CYLINDER SLASHERS

### SLASHER MODERNIZATION EQUIPMENT

HI-SPEED HEAD ENDS  
SPECIAL WIDTH HEAD ENDS  
ADDITIONAL CYLINDERS  
MULTI-MOTOR DRIVES  
STRETCH CONTROL UNITS  
EQUI-TENSION CREELS  
TEMPERATURE, SPEED and TENSION CONTROL DEVICES  
SIZE BOXES, SIZE KETTLES, and SIZE PUMPS  
CORDUROY CUTTING MACHINES AND BRUSHERS

PUSH BUTTON CONTROL of multi-motor drive provides smooth and fast response to necessary speed changes. No mechanical friction clutch.

**WEST POINT  
FOUNDRY & MACHINE CO.**  
WEST POINT, GEORGIA

# textile bulletin

Editor . . . . . JAMES MCADEN JR.

R. J. KISSIAH . . . . . ANDREW HEWITT  
Field Editor . . . . . Associate Editor

EMILY KERNS . . . . . Inquiry and Reader Service

TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving phases of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are theirs and not necessarily those of the editors and publishers. ¶ Subscription rates are: one year payable in advance, \$1.50; three years payable in advance, \$3.00;

TEXTILE BULLETIN IS PUBLISHED MONTHLY BY

## CLARK PUBLISHING COMPANY

P. O. Box 1225 • CHARLOTTE 1, N. C. • Telephone 3-3173  
— Offices and Plant: 218 West Morehead Street, Charlotte 6 —

DAVID CLARK . . . . .	Chairman, Board of Directors
JUNIUS M. SMITH . . . . .	President and General Manager
F. R. CAREY . . . . .	Vice-President and Eastern Manager
(P. O. Box 133, Providence, R. I.—Telephone Williams 3897)	
JAMES MCADEN JR. . . . .	Vice-President
MARGARET L. ROBINSON . . . . .	Secretary-Treasurer
HENRIETTA MONROE . . . . .	Circulation Manager
MIRIAM SCRUGGS . . . . .	Production Manager
ROY M. ANGLIN . . . . .	Mechanical Superintendent
BEN C. THOMAS . . . . .	Field Circulation Representative

one year, Canada, \$3.00; one year, other countries in Postal Union, \$5.00; single copies, 25 cents. ¶ A companion monthly journal, THE KNITTER, is published by Clark Publishing Co. and devoted to the interests of the knitgoods manufacturing industry.

## Confused, Would You Say?

Suppose you were asked to describe the present textile industry situation. What would *you* say? We frequently are asked to do so. And to cover up an inability to come to any satisfactory conclusion, we usually answer "confused."

Mill Chain A is running six days, three shifts. Mill Chain B is running five days, two shifts. Mill Chain C is stumbling along on no particular schedule, and if you try to make any sense out of its financial report, it would appear that this organization is broke and doesn't realize it.

Still lacking any general conclusion as to market conditions, you then go to chief executives of textile manufacturing firms. Executive C says that prices are strengthening and demand increasing. Executive D believes that 1954 won't be so bad after all. Executive E had a very good 1953, looks for an even better net profit this year.

No general conclusion yet. What about the smaller organizations, the "little boys." One specialty fabric mill says "We're doing all right." A yarn sales manager wonders what his prices will be next week, and is even dubious as to whether he will be running in July. But a neighbor down the road, a small print cloth mill, claims to be booked up into the fourth quarter.

So, what say the men who have occasion to look at the general situation, the economists, the experts, the "brains"?

The textile industry "can look forward with a great deal of confidence toward the Fall, not only for larger volume but also for better profit margins," according to Dr. Marcus Nadler, professor of banking and finance at New York University Graduate School of Business Administration. "The readjustment in the durable consumers goods industry," says Dr. Nadler, "is more pronounced than in the softgoods industries. The latter group, and particularly the textile industry, is at present suffering from a too-cautious attitude of many retailers, who have adopted a hand-to-mouth buying policy, expecting manufacturers to make

prompt delivery as goods are needed. This policy has not only increased the burden of risk of the manufacturer, but also his cost of operations. But in the textile industry the worst of the readjustment is over."

In discussing the outlook for business generally, Dr. Nadler says that with the greatest part of the business decline over, "a levelling off process has set in, and later in the year a moderate pick-up in production and employment may be expected. By the end of 1954 the inventory readjustment and consumer debt liquidation should be completed. The effects of the transition from a defense economy to a more normal peacetime economy will, however, last for some time. Many more months may pass before the index of production reaches levels attained during the height of the boom in 1953. How fast the effects of the transition from an economy of shortages to one of surpluses are overcome will depend on the ingenuity of American businessmen to induce consumers to spend more of their income and on their awareness that the economy of the United States is a growing and dynamic one. The strongest force operating in the economy is disposable income of individuals, which has remained at a high level. The people have the ability to spend, as is evidenced by the growing savings and by the fact that sales of savings bonds during the first quarter of this year were higher than at any time since the war. To convert this ability into willingness to spend is the task of industry and trade. The average American consumer, well-stocked and with large deferrable demands, has become more price and quality-conscious. It is, therefore, up to business, through proper pricing, advertising and styling of commodities, to induce him to spend more and save less."

Indicative of a strengthened supply situation and of potential early improvement in textile values, production of cotton goods in the first half of 1954 will fall some 800 million square yards below first half 1953, W. Ray Bell, president of the Association of Cotton Textile Merchants of New York, states in the organization's 23rd annual market survey. The recession phase of the textile cycle,





there's **BEEF TALLOW** in

# FIBERLAY

(Registered U. S. Pat. Off.)

*the finest size compound money can buy!*

**100% Concentrated**

***Fiberlay gives you  
Greater Weaving Efficiency . . . Better Finishing***

FIBERLAY contains ONLY Beef Tallow, Locust Bean Gum, Wax and Mildew Preventive, blended in correct proportions to make the finest size compound money can buy.

*Absolutely*

**NO water, NO starch,  
NO chlorides, NO mineral oil, NO paraffin,  
or other fillers in FIBERLAY**

**Use FIBERLAY on your cottons, woolens and spun blends**



*Order today direct from the exclusive manufacturer of FIBERLAY*

**CHEMICAL PROCESSING CO.**

*Makers of Chemwax, Lubewax PVS, Gel-ex and O-W Lubekote*

2316 South Boulevard

P. O. Box 3102

CHARLOTTE 3, NORTH CAROLINA

which began nearly a year ago, has about run its course and "will soon give way to more constructive and healthy markets," he states. "Evidence is growing that price cutting has been abandoned as a typical industry policy in favor of production curtailment. This is characteristic of the final phases of textile recessions."

The adjustment of production, which in the four-month January through June period has been marked by a 14 per cent drop in raw cotton consumption and spindle hours operated, will in all likelihood continue through the Summer months and vacation period, Mr. Bell notes. "The natural outcome is that mill surpluses will no longer be available for ready shipment and the chances of improvement in textile values will be greatly enhanced." Already, he adds, some areas of the market have shown the effects of changing supply conditions with unprofitable business turned down and fractional price gains recorded.

Mr. Bell foresees a return of confidence in forward transactions after the long period of hand-to-mouth buying dating from late last Summer, and a better appreciation of the value of trade inventories after a period of inventory retrenchment. Referring to the third of the post-war textile recessions, he notes that production had reached 11.3 billion square yards in 1953, second only of post-war years to 1951, with intensive operations tapering from peaks early in the year. The sudden change in buyer attitudes toward forward buying and inventory in the early Fall of 1953 brought with it constantly reduced price levels in the industry, a substantial rise in idle spindles, and eventually the more drastic curtailment of operations featured thus far in 1954.

With military purchasing reduced and a lesser export offtake, cotton textiles adjusted for import and export were made available in 1953 for civilian use in this country in amounts exceeding the largest quantity ever in any calendar year, he states. Even so, this rise was in great measure offset by the increase in population, as a consequence the amount available per capita stood at 67.3 square yards, or only fractionally above the 67.0 square yards of 1939. Material advances in employment, earnings and disposable income in the meantime indicate a well maintained public consumption of apparel and household goods. "With the popularity of cotton fabrics undiminished and their current values at the lowest of post-war levels," Mr. Bell believes, "prospects are especially bright for an early end to the extreme caution which has dominated buying habits for almost a year. Today, depletion of warehouse and counter reserves has reached the point of replacement at excessive transportation costs, and loss of sales to consumers from inadequate assortments and sizes."

Credit losses in the manufacturing and distribution end of the textile industry for the first quarter of this year have moved gradually to a point where they are now at post-war highs, having risen 78 per cent over the corresponding period in 1953, according to a recent report on several hundred firms in the industry made by Frank Kelly, vice-president of James Talcott Inc., factors.

Mr. Kelly's report showed that liabilities represented by these failures have increased 73 per cent, a post-war high of approximately \$9,000,000, over a similar 1953 period. This movement according to Mr. Kelly has been a gradual one in the last four or five years, whereas over-all statistics

compiled by Dun and Bradstreet would indicate that failures, generally, are 40 to 45 per cent over a year ago, and up by one-third over several years ago. Neither in the textile field, however, nor in the general losses do the percentage figures approach those reached during the 1930-40 decade.

Also evident in the report is the fact that the return from "embarrassments" is considerably less than it was prior to 1940. In this connection it is interesting to find that prior to 1933, embarrassed debtors paid on an average of 35 per cent of their debts. With the advent of inflation and high taxes, however, this average would probably not exceed 25 per cent today.

Several interesting points were noted by Mr. Kelly in connection with the losses in the textile industry. Most outstanding is the fact that there have been a number of losses in converters of rayons and synthetics. This segment of the textile group is known to overtrade, and consequently suffers first in a declining market.

It is Mr. Kelly's belief that this liquidation has about run its course. Bearing in mind the statistical position of the textile industry, the leveling off of economy generally and the competition existing in the extension of credit, Mr. Kelly does not foresee a worse debt situation over the next several years.

Sales of woven woolen and worsted apparel fabrics in the first quarter this year lagged behind those in the first period of 1953 but showed an increase over the last quarter of 1953, figures gathered by the National Association of Wool Manufacturers indicate. The figures are from 75 firms which produce about half of the wool apparel cloth made in this country.

As compared with the first quarter last year, sales were down 23 per cent but rose 43.7 per cent as compared with the last quarter of 1953. Production by the 75 firms, however, was lower. It was down 28.7 per cent compared with the first 1953 quarter and 17.7 per cent lower than in the last period of 1953.

Shipments of French and Bradford worsted weaving and knitting yarns made for sale also were lower in the first quarter this year as against the first quarter of 1953.

## The Date Is Printed Correctly

"It is a gloomy moment in history. Not for many years, not in the lifetime of most men who read this, has there been so much grave and deep apprehension; never has the future seemed so incalculable as at this time.

"In France the political caldron seethes and bubbles with uncertainty; Russia hangs as usual like a cloud, dark and silent upon the horizon of Europe; while all the energies, resources and influences of the British Empire are sorely tried, and are yet to be tried more sorely, in coping with the vast and deadly disturbed relations in India and China.

"Of our own troubles (in the U.S.A.) no man can see the end. It is a solemn moment, and no man can feel an indifference, which happily, no man pretends to feel in the issue of events."—*Harper's Weekly*, Oct. 10, 1857.

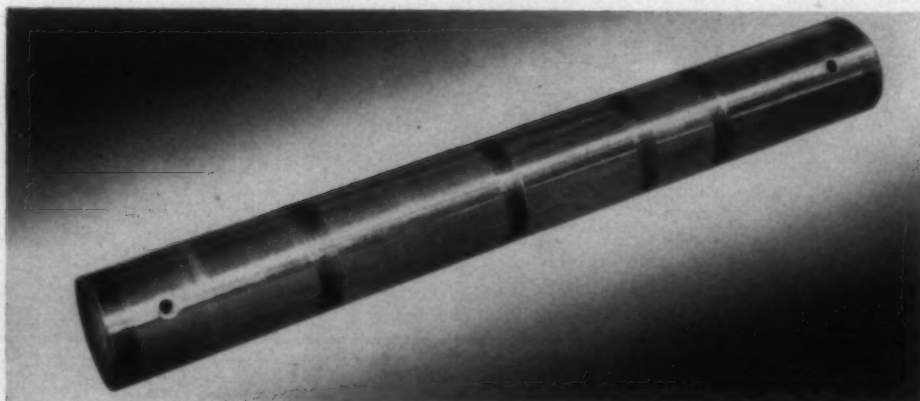
Among the brilliant assembly at the Writer's Tea was the author of "How To Save On Your Taxes." He is now working on a sequel entitled: "My Five Years at the Federal Penitentiary."—*Lamar (Mo.) Democrat*.

# More Production... at Lower Costs!

*With*

**Gastonia**

**TEXTILE SHEET METAL PARTS**



## Cylinders

For continuous, high-speed production . . . at lower costs . . . top performance of your Spinning, Twister, and Quiller Cylinders is a must.

Gastonia Cylinders are dynamically balanced and scientifically tested for better performance.

We manufacture, repair and rebuild cylinders to your specifications.

GASTONIA Cylinders—like all other GASTONIA Products—are made of the finest materials by highly skilled workmen with precision machinery.

*Many years of practical experience go into every product..*

**Gastonia**

**TEXTILE SHEET METAL  
WORKS**

Gastonia, North Carolina

*A sheet metal works serving textile mills*

### CARD SCREENS

Standard type rib or perforated—cut and assembled on special precision-built jigs.

### SCREENS

Picker, Condenser and Waste Machine Screens of maximum strength and durability.

### ASPIRATORS

Precision manufacturing methods assure proper shape and balance of Aspirators and Aspirator Dampers.

### Sliver Pans

### Waste Chutes

### Waste Chute Covers

### Back Tins

### Lap Conductor Tins

### COMBER RENEEDLING

Top Combs, Half Laps and Winder Guide Combs precision-rebuilt of top quality materials to manufacturer's standard specifications. Imported English needles of tempered high-tensile steel used exclusively.



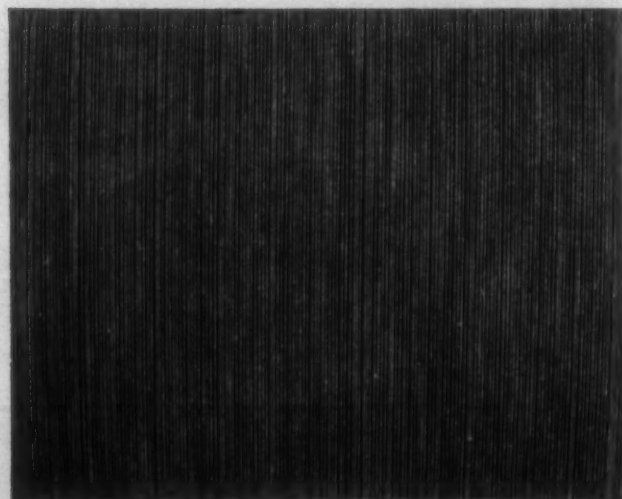
# Compare!

*performance  
proves*

WITH OVER 1000 FRAMES OF N/Y ROLLS IN OPERATION,  
MILLS REPORT UP TO 40% LESS VARIATION



CROOKED ROLL PATTERN



WITH N/Y ROLLS—NO PATTERN

Are you having yarn variation caused by crooked rolls?

We have the answer to your problems. No crooked roll pattern with Norlander-Young Case-Hardened Drafting Rolls.

Twenty years of experience in precision engineering and manufacturing have gone into the Norlander-Young drafting rolls. For quality and precision, diameters are held to .0015". For straightness, runout not to exceed .003".

THE SYMBOL OF  
**norlander-young**



SERVICE AND QUALITY

**machine company**

YORK ROAD, GASTONIA, NORTH CAROLINA, TELEPHONE 8556

**FLUTED ROLLS FOR SPINNING • FLYER FRAMES • COMBERS • DRAWING & LAP MACHINES**

## Those Who **STAYed** At Myrtle Beach Took Home Some Sense As Well As Sunburn

**T**HE 45th annual convention of the Southern Textile Association, held June 10-12 at the Ocean Forest Hotel, Myrtle Beach, S. C., was a combination of sun, sea, sand and seriousness for the more than 500 that attended. The social situation was well in hand what with ideal weather for beach frolics, golf, bingo, bango and bongo. In the serious vein, still unremoved from the pleasant side, a group of four speakers simultaneously entertained and informed the convention on subjects that, though variously titled, struck common ground on some of the serious considerations with which Southern millmen must confront themselves.

In terms of audience appreciation, the four speakers brought "messages" rather than "speeches" before the convention. The first address was delivered by Reese Hart of the South Carolina Development Board who spoke with pride of the rising importance of South Carolina in the field of textiles. He answered the oft-asked question of "why are industries moving to the South?" with a convincing appraisal of what the South has to offer new industries. He cited three basic inducements in the order of their magnitude as (1) good people . . . good, hard-working people; (2) good government; and (3) wise taxes. The South, he declared, is no longer a sleeping giant. "He (the giant) hasn't stood up and flexed his muscles yet," he said, "but he is no longer asleep." As for his own state, Mr. Hart pointed out that since the second World War more than 2,300 new industries had located in the state, representing a billion dollar investment, a \$300 million annual payroll and 113,000 additional jobs. But, he warned, there is an area of development over which Southern states, and for that matter the nation as a whole, must be extremely vigilant. That is in the problem of supplying an adequate number of engineering graduates to fulfill industry's needs. Not only must there be an ever increasing number of engineers turned out by the state, he said, there must also be enough industry to provide adequate opportunities for engineers so that the graduates won't leave the state to seek more benevolent jobs elsewhere. He pointed out that approximately \$27,000 is invested in each college graduate by the time he is ready to find himself in industry. Currently, he noted, three out of five graduates leave South Carolina for employment. This trend must be halted and, at the same time, the number of graduates must be increased.

H. K. Hallett, vice-president of Kendall Mills and immediate past president of the American Cotton Manufacturers Institute, in a paper entitled "Industry's Greatest

Need," told the convention: "The greatest problem of American business . . . is that of leadership—leadership resources to meet the needs not only of the urgent present, but to meet the greater needs of tomorrow." This, he observed, is due to the tremendous growth in the number of businesses in the U. S. coupled with the growing complexity of business itself. He pointed out that this country must keep up with the rest of the world in developing people with ingenuity, initiative, imagination and the will to work hard. "All industry in America needs them," he stated. "And the competition for them is getting keen. We want young men with a flare for risk-taking and a real capacity for leadership. Real man timber is hard to find. There is plenty of second growth scrub oak. I am talking about a live oak—real man timber, the potential executive."

The speaker continued by citing three elements—social experience, educational development and job experience—as the corner stones that must be climbed by those who aspire to be chosen as top leaders. He pointed out what aids could be given to junior executives on their way up and urged for an arrangement between the junior executive and his superiors that would give the former more confidence in his own ability. He also stressed the importance of setting up a system of personnel evaluation leading to specific action as a result of such study. "Success of such an effort by American business and industry," he concluded, "can well determine the future of our nation."

The first guest speaker at the final business session on Saturday, June 12, was Harold W. Smith, secretary and comptroller, Cone Mills Corp., Greensboro, N. C. Mr. Smith, speaking on the part the production man plays on a corporation's tax and financial team, compared the one-man executive textile organization of 40 years ago with those of the present. He pointed out that back in those days the average textile organization was over-staffed if it had two executives, but that today the same company with 50 top flight executives may well be under-staffed. This is a result, he noted, of the growing complexity of the three major divisions of a textile organization—production, merchandising and finance. No one person could possibly qualify as an expert in all phases of any one of these fields, much less in all three, he said. For this reason, he went on, it is absolutely necessary to train young executives in as many phases of the entire organization as is possible. It is also advisable, he said, to switch key jobs between key personnel as often as possible in order to bring the entire picture of the company to focus. The desirability of let-



James



Stafford



Chapman



Estes



Purcell



Godfrey



Vincent



Carter



Meikle



Etters

ting the left hand know what the right hand is doing was illustrated by Mr. Smith by means of an example of tax profits from the sale of old textile machinery. "First," he said, "assume the old equipment had been in your plant 20 years or more, so that it is now fully depreciated. It originally cost \$100,000, but since that cost has now been written off, its book value is zero. You sell it for scrap for \$1,000."

"In the natural course of events," he continued, "your accounting department will receive \$1,000 from the junk dealer. Since this money represents scrap sales, they have no choice but to treat it as ordinary income. At the end of the year, a federal income tax of \$520 is paid on this income. Your company nets \$480 out of the deal."

"But here is what could have happened if you and your financial people had worked together with full mutual understanding. The old equipment would still have been sold for the same \$1,000, but as second-hand machinery on an 'as is' basis. Then your accounting and tax people could have treated the \$1,000 as a sale of machinery and the federal income tax would be assessed at the lower capital gains rate of tax and would have been only \$260. Your company would have netted \$740, or \$260 more on the deal. In addition, your accounting and tax people would have had sufficient information to permit them to reduce the mill's ad valorem tax listing, so that property taxes would also have been reduced some several hundred dollars a year."

Mr. Smith concluded his address by urging those present to sell their companies on the idea of keeping the company's entire operation in focus at all times. If not, he cautioned, we might find that "too soon we will get old and too late we will get smart."

Undersecretary of Commerce Walter Williams, appearing as final speaker of the convention, expressed his appreciation for the invitation to come from Washington—which he described as "the city of accumulated fatigue"—to address the group. Speaking without notes, Secretary Williams declared that the security of the U. S. depends on private enterprise. Maximum security and maximum freedom, he said, is "achievable through an efficiently functioning private enterprise economy to a degree possible by no other means."

"It is sobering," he said, "that Russia now graduates more scientists and engineers than the U. S." This means,

he continued, that the Soviets may be catching up, not only on atomic weapons but in the field of research, the key to increased production. "Unless our famine in potential know-how is overcome, the results in relation to economic growth and national security could be exceedingly dangerous," he stated. He described some of the efforts being made by such agencies as the U. S. Bureau of Standards in the field of research and stated that some of the findings made recently by this and other organizations indicate that great scientific advances are in the offing for this country. With these technological advances, he observed, will come an increase in production and a stimulation for still greater advances. But, he warned, there must be no complacency, no self-satisfaction or smugness.

He cited a number of basic business barometers in the 1937-38, 1948-49 and 1953-54 periods of recession and noted that, despite many current misgivings, the nation is on a sounder economic keel than some would have you believe.

T. I. Stafford, production manager of Clifton (S. C.) Mfg. Co. and retiring president of the S.T.A., warned, in what he called the customary remarks of a retiring president, against complacency in the Southern textile industry. He cited the downfall of Great Britain and then of New England as world textile centers and observed that the transition that left them behind was due in part to a self-satisfaction that curbed progressive thinking and halted technological advancement. Mr. Stafford reviewed the history of textiles and pointed out that "textiles will always be a vital part of our economy." Pointing out that the South is now the leader in textiles, the speaker posed the question "Where will we be 30 years from now? Will we still be the leader or will the Southwest take over, or even some other nation? Certainly this is a possibility. There is also a good possibility that we can maintain and even improve our position. If we are going to be like the dinosaurs and not change with the times, we will lose out. But if we are willing to keep our mills modern both in methods and machinery we can keep ourselves strong. . . . Two things will be of prime importance for success—we must keep our mills modern and we must all be willing to work hard to keep improving."

Following the addresses on Saturday morning, June 12, Mr. Stafford turned the meeting over to the incoming president, J. L. James, manager of Erwin Mills Inc., Coolee-



mee, N. C. Mr. James, first vice-president during the past year, assumed the presidency by tradition. J. A. Chapman Jr., vice-president, Inman (S.C.) Mills, was elevated from second to first vice-president by tradition and H. C. Estes, general superintendent of Pacific Mills, Rhodhiss, N. C., was elected second vice-president. Mr. Estes this year completed a three-year term on the board of governors. Mr. Stafford as retiring president will automatically take over as board chairman of the association, succeeding D. A. Purcell, superintendent of the blanket plant, Fieldcrest Mills Inc., Draper, N. C., 1952-53 S.T.A. president.

Three new members were elected to the board of governors to succeed retiring J. C. Godfrey, superintendent, Calhoun Mills, Calhoun Falls, S. C.; T. J. Willis, superintendent, Mathews Plant, Greenwood (S. C.) Mills; and Mr. Estes. New governors are J. P. Carter, assistant superintendent, Spartan Mills, Startex, S. C.; W. B. Etters, plant manager, Laurens (S. C.) Mills; and Walter Vincent, division superintendent, Dan River Mills Inc., Danville, Va. J. R. Meikle, general superintendent, Rosemary Mfg. Co., Roanoke Rapids, N. C., was re-elected. The four will serve three-years terms expiring in 1957.

Continuing board members include Howard Barton, housekeeping manager, Fieldcrest Mills Inc., Spray, N. C.; J. P. Hughes, superintendent, Cone Mills Corp., Hillsboro, N. C.; W. M. Pittendreigh, superintendent gray mill, Riegel Textile Corp., Ware Shoals, S. C.; and J. B. Powell, superintendent, Locke Cotton Mills Co., Concord, N. C., whose terms expire in 1955.

Also P. S. Leach, superintendent, Consolidated Textile Co. Inc., Lynchburg, Va.; A. M. Moore, superintendent of Plant No. 6, Erwin Mills Inc., Durham, N. C.; Horace Pennington, assistant general manager, Cone Mills Corp., Greensboro, N. C.; and D. H. Roberts, superintendent, Lydia Cotton Mills, Clinton, S. C., whose terms expire in 1956.

The newly-installed president, Mr. James, presented Mr. Stafford a silver serving tray on behalf of the association in appreciation of the services rendered by Mr. Stafford during his official capacities with the association.

An election of officers in the associate members division was also held on Saturday morning, June 12. John H. Foard, Ragan Ring Co., Newton, N. C., was elected chairman of the council; J. E. Spivey, The Textile Shops, Spartanburg, S. C., was named chairman of the associate members division succeeding Mr. Foard; Herbert L. Norton, finishes division, E. I. du Pont de Nemours & Co. Inc., Atlanta, Ga., was named vice-chairman of the associate members division. Junius M. Smith, TEXTILE BULLETIN, Charlotte, N. C., was re-elected secretary.

Council members elected for two-year terms included Frank Swords, Veeder-Root Co., Greenville, S. C.; Charles H. Conner, Anheuser-Busch Co., Charlotte, N. C.; William L. Morgan, Dayton Rubber Co., Greenville, S. C.; Ernest Dodge, Foster Machine Co., Charlotte, N. C.; and R. C. Rau, Clinton Foods Inc., Atlanta, Ga.

Continuing as council members are R. M. Dixon, Barber Mfg. Co., Charlotte, N. C.; Lewis Burgess, Crompton & Knowles Loom Works, Charlotte, N. C.; E. D. Meadows, Meadows Mfg. Co., Atlanta, Ga.; Henry Wood, Hunt Loom & Machine Works, Greenville, S. C.; and Fred D. Taylor, Barber-Colman Co., Greenville, S. C.

On the social side, W. M. Aiken, manager of Seminole Mills, Statesville, N. C., won low net golfing honors among the millmen with a score of 66. He received a set of four

woods for his play. Other dignitaries among millmen included M. L. Brackett, superintendent, Highland Park Mfg. Co., Charlotte, N. C., second low net with a 69; George M. Huguley, superintendent, Clinton (S. C.) Cotton Mills, third low net with a 70; Edwin Holt, general manager of Cone Mills Corp., Greensboro, N. C., fourth low net with a 70; George O. Porter, superintendent, Hart Cotton Mills Inc., Tarboro, N. C., low gross with an 81; E. D. Trammell, superintendent of weaving, Dora Yarn Mill, Cherryville, N. C., second low gross with an 84; W. W. Lambeth, assistant manager, Virginia Mills Inc., Swepsonville, N. C., third low gross with an 86. T. C. Jolly, superintendent, Drayton (S. C.) Mills, came in with the highest score for the 18 holes with 118 to his credit. Harold W. Smith, secretary and comptroller, Cone Mills Corp., Greensboro, N. C., one of the guest speakers, came in with the highest score for one hole—the figure unavailable.

In the associate members division, William T. O'Steen, A. E. Staley Mfg. Co., Greenville, S. C., won a set of four woods by capturing low net honors with a 66. George Mallory, Foster Machine Co., Charlotte, N. C., won second low net with a 66; Sam S. Rice, West Point Foundry and Machine Co., Anderson, S. C., won third low net with a 66; and Melvin Bell, Slip-Not Belting Co., Greenville, S. C., took fourth low net honors with a 67.

E. T. Hughes, Gulf Oil Corp., Columbia, S. C., shot a gross 78 to place first in that division, followed by Robert Lee, West Point Foundry and Machine Co., Spartanburg, S. C., with a 79; and Welling LeGrone, Seydel-Woolley & Co., Greenville, S. C., with an 80.

W. S. (Bill) Terrell, chairman of the golf committee, pointed out that in the case of ties, as noted above in the low gross division, the winner is decided by matching cards starting with the first hole. In addition to the two sets of woods awarded low net scorers in both divisions, other golf prizes included putters, umbrellas, sand wedges, golf bags, shoes and balls—the prizes divided equally between regular member and associate member winners.

Other activities during the course of the convention included a buffet dinner on Thursday, June 10; floor shows on Thursday and Friday nights in the hotel's Marine Patio; and a bingo game on Friday afternoon conducted by J. A. Chapman. Bingo prizes included gifts valued collectively at between \$400 and \$500. More than 200 took part in the games. Door prizes were also awarded at both business sessions.

The next annual convention of the association will be held at Mayview Manor, Blowing Rock, N. C., June 16-17-18, 1955. The site of the convention has traditionally been alternated between Blowing Rock and Myrtle Beach.

The following firms were contributors to the entertainment and prize fund of the '54 convention:

Abbott Machine Co., Abington Textile Machinery Works, Aldrich Machine Works, American Moistening Co., American Trust Co., American Viscose Co., *America's Textile Reporter*, Anheuser-Busch Inc., Armstrong Cork Co., Ashworth Bros. Inc., Atkinson, Haserick & Co., Atlanta Belting Co., Atlanta Brush Co., The Bahnsen Co., Barber-Colman Co., Barber Mfg. Co., Barreled Sunlight Paint Co., Becco Sales Corp., Blackman-Uhler Inc., Bowen-Hunter Bobbin Co., Bryant Electric Repair Co., The Bullard Clark Co., H. W. Butterworth & Sons Co., Carolina Loom Reed Co., A. B. Carter Inc., Centennial Cotton Gin Co., Clinton Foods Inc., Cocker Machine & Foundry Co., Corn Products Sales Co., Crompton & Knowles Loom Works, Curtis & Marble Machine Co., *Daily News Record*, The Dayton Rubber Co., W. D. Dodenhoff Co., Drake Corp., Draper Corp., Duke Power Co., E. I. du Pont de Nemours & Co (Finishes

Division), E. I. du Pont de Nemours & Co. (Dyestuffs Division), Field Loom Reed Co., Fields Mfg. Co. Inc., Foster Machine Co., The Foxboro Co., Gastonia Belting & Supply Co., Gastonia Textile Sheet Metal Works, Gates Rubber Co., Goodyear Tire & Rubber Co. (Industrial Products Division), Greensboro Loom Reed Co., Greenville Belting Co., Greenville Loom Reed Co., Greenville Textile Supply Co., Grinnell Co., Gulf Oil Corp., Hart Products Co., Hollister-Moreland Co., E. F. Houghton & Co., Howard Bros. Mfg. Co., Huntington & Guerry Electric Co., Hunt Loom & Machine Works, Ideal Machine Shops Inc., Industrial Supply Co., Iredell Chemical Co., Jenkins Metals Shops Inc., Keever Starch Co., H. F. Livermore Corp., Lockwood Greene Engineers, Ralph E. Loper Co., McLeod Leather & Belting Co., Meadows Mfg. Co., Moreland Chemical Co., National Ring Traveler Co., National Starch Products Inc., New York & New Jersey Lubricant Co., Frank G. North Co.,

Odell Mill Supply Co., Olney Paint Co., Penick & Ford Ltd. Inc., Pneumafil Corp., Ragan Ring Co., Raybestos-Manhattan Inc. (Manhattan Rubber Div.), Reliance Electric & Engineering Co., Robert & Co. Associates, Schachner Leather & Belting Co., Seydel-Woolley & Co., Sherwin-Williams Co., Sinclair Refining Co., J. E. Sirrine Co., Slip-Not Belting Corp., Sonoco Products Co., Southern Belting Co., The Staley Sales Corp., Steel Heddle Mfg. Co., Stein, Hall & Co., The Stodghill Co., Sykes Inc., Taylor Instrument Cos., The Terrell Machine Co. Inc., Texize Chemicals Inc., TEXTILE BULLETIN, *Textile Industries*, The Textile Shops, Textile Mill Supply Co., *Textile World*, Thackston & Redding Inc., U. S. Ring Traveler Co., Veeder-Root Inc., Victor Ring Traveler Co., WAK Industries Inc., Watson & Desmond, Westinghouse Electric Co., West Point Foundry & Machine Co., Whitin Machine Works, Whitinsville Spinning Ring Co., Wrenn Bros.

## Angles Of Broad Consumer-Need Research Discussed By South Carolina Leaders

By HENRY LESENE

THE idea of an intensified and far-reaching program of research into consumer needs, preferences, motivation and demands—a matter which seems to be increasingly engaging some of the best thought in the textile industry—emerged as the basic underlying theme which ran through discussions at the annual meeting of the South Carolina Textile Manufacturers Association at Sea Island, Ga., the last few days in May.

More research along this line was unqualifiedly endorsed by Marshall C. Stone of Pacolet Mfg. Co., Pacolet, in his address as retiring president of the association. He viewed such a suggested course, actively participated in by the mills themselves to a far greater degree than at present, as an important factor that could aid the industry to attain stability and level off the "boom-bust" cycle, long characteristic of textiles.

Mr. Stone put it this way: "What we need is expanded creative research to determine whether the average person will buy what we make when we make it and at a price he can pay and in what quantity, or whether he'd prefer something else." As president of one of the largest of the state textile trade bodies, he concurred fully in the thoughts along this line expressed by H. K. Hallett, Kendall Mills, Charlotte, N. C., in his president's address at the New Orleans A.C.M.I. convention.

"Along every front the textile industry is being broadened by research, and it seems to me significant that much thought in the industry appears to be turning to a greater-than-ever recognition of the importance of the consumer's rule in textile stability," he said. "This sort of approach to the dilemma in which the textile industry is always finding itself deserves the most thoughtful consideration of everyone connected with the industry." So long as the industry tends to think in such bold terms, he added, the future can be one of "full promise and unlimited potentiality."

Quite coincidentally, the "guest" or outside-the-industry speaker at the South Carolina meeting, Frank W. Lovejoy of New York City, who has been associated with the Socony-Vacuum Oil Co. Inc. for the last 25 years, dealt at length in a general way with this same theme or line of thought.

A leading authority on the principles of merchandising, Mr. Lovejoy, who had an extensive background in the dry goods field before he entered the oil business, urged the textile men to avoid complacency or the accustomed way of doing things like the plague, and to explore new and original ways of merchandising, based on what the consumer wants or prefers. He cited numerous practices in his own company that stem from exhaustive studies of consumer research.

One of the industry guests at the convention, J. Craig Smith of Sylacauga, Ala., newly-elected president of the American Cotton Manufacturers Institute, is another among textile's top-level management who feels that the mills themselves could benefit from an intensification of their participation in the field of consumer research, or even making greater and fuller use of basic data currently available. "I suspect," he says, "that what the entire cotton industry, and particularly the part of it with which I am directly connected, needs to do most is to improve methods of distribution and selling techniques."

"Other industries," the A.C.M.I. head points out, "have found that consumer research is fertile field to work in . . . and I believe we have something coming to us by finding out what the ultimate consumer wants most and then giving it to him the way he wants it."

As to cotton, Mr. Smith puts it this way: "We should not be content to point out that cotton has more qualities than this fiber or that one. We want to reach the point where we can say that cotton has more desirable qualities than all other fibers together, including those we may expect to be developed in the future. We can no more achieve this goal by guessing at the cotton fiber's thus-far-undiscovered qualities than we can achieve the goal of being aware of what the consumer wants and will buy by guessing at it. In both fields, scientific research is the only practical answer."

Those leaders in the textile industry who have been giving a great deal of thought to the field of consumer research point out that while there is an urgent need to expand research along this line and that there is a need for greater



participation in such work by textile mills, there is also a need for fuller utilization of all the basic information and data currently available. At the same time, however, they acknowledge that the accomplishments in this field so far constitute only a beginning and that they need to be expanded and intensified in all markets. They also acknowledge that the problem is to find a way to do it.

For the coming year the affairs of the South Carolina association will be guided as president by Ellison S. McKissick, Alice Mfg. Co., Easley, who served as the first president of the American Cotton Manufacturers Institute, and who brings to his new office a wide background in the industry. Under the usual order of succession in the South Carolina association, he advanced this year from vice-president to president, succeeding Mr. Stone.

Chosen to succeed Mr. McKissick as vice-president was F. E. Grier, head of the Abney chain of mills, with headquarters in Greenwood. Under the customary procedure, Mr. Grier will become president of the association at the 1955 annual meeting. Mr. Grier has the rather unusual distinction of serving as an officer of a state association and the A.C.M.I., the central trade association, at the same time. In April he was elected second vice-president of the A.C.M.I. during its annual meeting in New Orleans.

Mr. McKissick was president of the old American Cotton Manufacturers Association, and when it and the Cotton-Textile Institute were dissolved six years ago to pave the way for the organization of the American Cotton Manufacturers Institute, he served as the first president of the new central trade association, which represents mills both in the South and in New England.

Three new directors were elected at the 1954 South Carolina meeting to fill terms which expired this year. The new directors are W. A. L. Sibley, Monarch Mills, Union, who is a past president of the A.C.M.I.; J. C. Self Jr. of Greenwood Mills, currently also a director of the A.C.M.I., and Earle R. Stall, Cone Mills Corp., Greenville, S. C., division. John K. Cauthen of Columbia is executive vice-president of the association.



McKissick



Stone



Grier

As a convention aftermath or follow-up, Robert C. Jackson of Washington, executive vice-president of the A.C.M.I. who was one of the speakers at the annual meeting, and C. A. Gibson, a former president of the South Carolina association, appeared on a radio program, originating at Sea Island, Ga., which was rebroadcast Wednesday evening, June 2, over some 500 stations of the Mutual Broadcasting System. They appeared on Christopher King's "Sounding Board," and answered questions pertaining to the cotton and textiles industries fired by persons in the audience which made up the "live" program at Sea Island. The questions pertained to a great variety of subjects including the world trade problem, the controversial Walsh-Healey public contracts act, cotton's competitive status and others.

Meeting in conjunction with the South Carolina association, the J. E. Sirrine Textile Foundation received a report

from Dean Hugh M. Brown of the textile school at Clemson College pointing out that research, as well as enrollment, has increased tremendously at the school in the last few years, and the school now accounts for between 22 and 23 per cent of total enrollment of all the ten college level textile schools in the nation.

Through the Sirrine Foundation, of which George M. Wright, retired textile executive of Abbeville, S. C., is president, textile manufacturers in recent years have contributed well over a million dollars for the advancement of textile education at Clemson. Dean Brown noted that the demand continues strong for Clemson textile graduates even though the textile industry has been through a long recessionary period of readjustment following the end of the Korean hostilities.

"For the fifth year," he said, "we have had the largest enrollment of any textile school, having an average of 549 students for the two semesters. Though this is somewhat less than we had last year, it is still well above that for any other school and represents a 72 per cent increase over our pre-war enrollment." The textile faculty, he said, now has 28 members.

Clifford B. Hayes of Pacific Mills, Lyman, is vice-president of the foundation, and Mr. Cauthen is secretary and treasurer. Robert H. Chapman of Inman Mills, Inman, is chairman of the board.

New members of the foundation's board of trustees elected this year include Mr. Stone; Walter Montgomery, Spartan Mills, Spartanburg; Mr. Gibson, F. W. Poe Mfg. Co., Greenville, and V. O. Roberson, United Merchants and Manufacturers.

Dean Brown reported that "extra professor" funds from the Sirrine Foundation, matched with college funds, are enabling the college to carry on a number of research projects. He said these were helpful for the school and "some of them, we hope, will be of real value to the textile industry."

These projects include development of a new type knitting machine; additional publications on X-ray research; development of a method to prevent "jerk-ins" on box looms; design of a new constant tension shuttle eye; development and evaluation of results on a new picker lap meter. Other projects involve a study of card performance with the flats run in opposite direction and the design of a flat stripping mechanism for such reversed operation, and a study of warping glass yarn and design of methods to prevent "tight and loose" ends on the loom beam. The amount of contract research at the textile school over the last few years has grown constantly, Dean Brown said, and within the past year the school has had contracts amounting to more than \$50,000. Additionally, he reported, the school carries on considerable research as part of its regular research program independent of outside support.

Mr. Jackson, who made the only address at the concluding session of the convention, reviewed developments on the scene in Washington. He said the administration's abandonment of plans to push the Randall Commission's recommendations for lower tariffs at this session of Congress means that the matter, in which the textile industry has such a deep concern, is merely postponed until the early part of 1955.

Discussing the suit in the federal courts by 200-odd textile mills challenging the Walsh-Healey Act, Mr. Jackson said its outcome is vitally significant to all industry in the United States, since the implications of the case extend far



beyond textiles and strike at the very root of the democratic concept of government. It amounts, he asserted, to whether the country has government by law or by administrative edict.

The textile mills which are parties to the suit, representing about half the entire industry, challenge the secretary of labor's right under the Walsh-Healey Act to determine minimum wage rates on a nation-wide basis, contending this was never Congress' intent when it passed the law as a piece of stop-gap legislation between the N.R.A. and the Fair Labor Standards Act. The issue, said Mr. Jackson, is simply this: "Shall one man in America—the Secretary of Labor—be vested with authority to 'determine' nation-wide minimum wage rates for every industry in the nation which does business with the government—and thus, indirectly, for all other industries?"

Remarking that the textile industry is acutely sensitive to the tides of war and peace and that the long recession through which it has been moving "is in large measure but a readjustment from the conditions of wartime need and demand," Mr. Stone in his president's address expressed the view that the cycle, however, is now reaching a turning point. He cited that South Carolina now leads the nation in active spindles on the cotton system, exceeding North Carolina for the first time, and that just about all of the completely new cotton mills to have been built in recent years have gone up in South Carolina.

Mr. Stone also noted a trend toward industrialization of other sections of the state besides the Piedmont, where the textile industry is largely concentrated, and added that the South's first wool combing plants are now being located in the eastern part of the state not far from the port facilities

of Charleston. With the advent of cotton mechanization and a shorter ginning season, he said, new cotton problems are arising which can be serious unless they are checked. He noted, however, that the South Carolina Textile Manufacturers Association has done some spadework in promoting a Cotton Quality Improvement Committee, composed of representatives from every segment of the industry, to tackle co-operatively the problems of overdrying and over-machining of cotton.

He said that the tremendous post-war industrialization of South Carolina exemplifies or expresses a faith and confidence in the state—its political leadership, its government, its legislature, its industrial climate, its tremendous natural resources, but above all, its people, who are, so to speak, all cut from the same bolt of cloth, and who share a common heritage."

"Our fair tax structure," he added, "is no doubt a contributing factor in the picture, for the textile industry is a highly competitive one, perhaps the most competitive there is, and such an industry as textiles can hardly continue to exist indefinitely in any state where it should be unfairly penalized.

"South Carolina was one of the last states in the Southeast to enact a so-called right-to-work bill, and this was done at the last session of the state legislature. States all around South Carolina in recent years have enacted such a law and we were the one big gap in a line of states with such legislation that extended from the middle Atlantic region to the Gulf. This undoubtedly was the most important piece of legislation affecting South Carolina industry that was passed by our legislature in 1954 or by any other recent legislature."

## Ten Years Of Cotton Textiles

By W. RAY BELL, President, The Association of Cotton Textile Merchants of New York



**Ray Bell is sometimes referred to as "the dean of Worth Street." His annual survey gives those concerned with the manufacturing of textiles an opportunity to look at the bare facts.**

**T**HE 23rd annual survey of The Association of Cotton Textile Merchants of New York adds to this series another year of large productivity for the cotton system mills of this country. Last year was the fourth of the post-war years in which total output of cotton broad woven goods exceeded 11 billion square yards and although the increase over 1952 was less than seven per cent it reflects for last year a more substantial improvement in earnings and general market activity. Especially was this true for the first six months of 1953 which experienced an extension of the modest but gradual recovery that had begun in late Spring of the preceding year. Spring markets in 1953 were buoyant with active and confident purchases by the trade for forward delivery of most types of product. Against this

background of bright prospects for thriving business throughout the year, the advent of a Fall recession was an unforeseen and discouraging development.

### Customers Hold Back Commitments

This third textile recession of the postwar period has dominated the markets since late last Summer. Unlike the situation in 1948-49 and its counterpart in 1951-52, its origin cannot be traced to excesses in price or over-speculation in the accumulation of trade inventories. The presence of these elements of inflation in each of the earlier downswings had forced severe financial losses and required many months of liquidating distress merchandise. Notwithstanding the absence of any boom conditions in 1953, inventory fears became uppermost with the textile trades and the normally active Fall season was a sorry failure. Buyers in general reinstated the characteristic policies of hand-to-mouth buying and inventory retrenchment, depending on abundant production for quick replacement of stock and on sharp competition among sellers for lower values. All emphasis was on turn-over and stock reduction, with forward purchases curtailed to minimum requirements.

Faced with these habitual practices of recessive markets,

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
* Includes cotton system spindles on other fibers. N.A. - Not available										
<b>EQUIPMENT</b>										
COTTON SYSTEM SPINDLES										
Spindles in place at beginning of year .....	23,342,922	23,105,942	23,787,000*	23,928,000*	23,727,000*	23,751,000*	23,341,000*	23,149,000*	23,152,000*	23,070,000*
Increase or decrease from preceding year .....	414,922	236,980	681,058	141,000	201,000	24,000	410,000	192,000	3,000	82,000
New installation, additions and replacements .....	82,736	323,688	323,056	416,555	607,358	858,623	649,780	771,065	295,642	267,328
<b>OPERATION</b>										
CONTINUING COTTON ONLY										
Spindles active at any time during year ending July 31st .....	23,018,828	22,674,852	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Average number of active spindles based on twelve monthly reports .....	22,332,080	22,018,529	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Average number of spindles active on last working day of month .....	N.A.	N.A.	21,475,000	21,588,000	21,391,000	20,063,000	20,449,000	20,632,000	19,924,000	20,023,000
CONTINUING FIBERS OTHER THAN COTTON, OR BLENDS										
Average number of spindles active on last working day of month .....	N.A.	N.A.	1,172,000	1,198,000	1,332,000	1,174,000	1,295,000	1,261,000	1,337,000	1,323,000
<b>ALL COTTON SYSTEM OPERATION</b>										
Spindles idle during year ending July 31st .....	324,094	431,090	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Average number of spindles idle on last working day of month .....	N.A.	N.A.	1,212,000	1,066,000	1,050,000	2,334,000	1,372,000	1,264,000	1,887,000	1,572,000
Spindle hours run:										
On 100% cotton .....	114,984,489,000	107,354,187,000	109,474,292,000	116,040,000,000	115,846,000,000	97,874,000,000	117,753,000,000	118,285,000,000	109,328,000,000	118,545,000,000
On other fibers, blends .....	N.A.	N.A.	5,875,000,000	6,346,000,000	7,432,000,000	5,816,000,000	7,502,000,000	7,563,000,000	7,583,000,000	7,487,000,000
Hours run per average active spindle .....	5,149	4,876	5,094	5,371	5,424	4,882	5,760	5,748	5,499	5,904
<b>MARKET</b>										
COTTON TEXTILES										
Production in square yards .....	10,572,421,000	9,779,238,000	10,171,225,000	11,083,383,000	10,863,129,000	9,391,578,000	11,206,659,000	11,415,218,000	10,593,006,000	11,300,032,000
Exports in square yards .....	628,675,000	673,601,000	774,945,000	1,480,025,000	938,796,000	880,255,000	558,678,000	802,427,000	761,595,000	621,005,000
Imports in square yards .....	11,216,000	80,029,000	43,758,000	15,962,000	31,749,000	19,743,000	47,799,000	45,779,000	36,337,000	64,251,000
Available for domestic consumption .....	9,954,962,000	9,185,666,000	9,440,038,000	9,619,320,000	9,956,082,000	8,531,066,000	10,695,780,000	10,658,570,000	9,867,748,000	10,743,278,000
Population at July 1st .....	138,397,000	139,928,000	141,389,000	144,126,000	146,631,000	149,188,000	151,677,000	154,360,000	156,981,000	159,629,000
Available for per capita consumption in square yards .....	71.93	65.65	66.77	66.74	67.90	57.18	70.52	69.05	62.86	67.30

Data assembled by the Association of Cotton Textile Merchants of New York from Bureau of the Census reports and information obtained through the courtesy of machinery manufacturers. Cloth production for 1944, 1945 and 1946 was calculated from War Production Board estimates. Cloth production for 1947 and later is based on 1947 census and reports of "Facts for Industry" series.

the industry struggled hard to maintain operations on a solvent basis. Once again, as in the late months of 1948 and 1951, prices were often slashed to the bone in an effort to restore confidence and promote forward transactions. Generally, such tactics proved ineffective except to encourage the procrastination of buyers and justify to them the merits of limited inventories. Even when successful in stimulating activity for nearby months, a follow through was lacking.

### New Peaks of Intensive Operation

Despite these frustrations of the market, top records for intensive production in the history of the cotton textile industry were established in 1953. By averaging a total of 5,904 hours of running time the active spindleage exceeded even the wartime heights of 1942 when our similar calculation was 5,793 hours. Total spindle hour activity, in excess of 126 billion hours for the year, was the maximum for any peacetime year. It reflects the ever increasing mode of third shift and Saturday operation, which has more than compensated for the dismantling of approximately one million spindles in the eight years of postwar experience. Within the same period, however, the installation, chiefly for replacement purposes, of some 4,189,000 new spindles suggests the important contribution of machinery modernization in this development. Idle spindles were lowest in March with 1,383,000 and increased to more than two million at the end of the year.

In the production of cotton broad woven goods, this exceptional activity resulted in an output in square yards

only slightly below the postwar peak of 1951, which was a year of heavy military requirements. Slackening off of military textile purchases last year and a sizeable loss in exported yardage emphasize an estimated total of 10,679,027,000 square yards made available for domestic consumption, to which is added 64,251,000 square yards of imported piece goods. Combined, and with allowance for such reduced military purchases as were made, these figures indicate that more cotton textiles were provided for the civilian market in this country than in any other prior calendar year.

### Per Capita Production About Normal

Output per capita, on the other hand, was well below that of 1950 and 1951 and but slightly higher than the normal expectation of an annual estimate. The 1953 figure of 67.30 square yards is fractionally above the 67.00 square yards of 1939 and under the estimate of 67.90 square yards for 1948. Between the latter year and 1953, domestic population had grown by some 13 million persons. In itself, this numerical increase in consumers would serve to account for more than the over-all gain of 787 million square yards of production. Because their general economic conditions have advanced materially in the interim, with respect to employment, earning and disposable income, while textile values have greatly declined, it is reasonable to believe that public consumption for apparel and household needs has been well maintained and will continue strong. Published statistics on retail sales of soft goods would seem to confirm this appraisal of steady and pro-



gressive consumer demand which has always furnished the corrective influences to past movements of regression.

### End of Recession in Sight

With the popularity of cotton fabrics undiminished and their current values at the lowest of post-war levels, prospects are especially bright for an early end to the extreme caution which now has dominated buying habits for nearly a year. As in previous cycles, particularly that of 1948-49, trade inventories have been thoroughly liquidated and forward buying kept to a minimum of replacement. This has resulted in the gradual depletion of warehouse and counter reserves to the point that fast replacement incurs high transportation costs and consumer sales are being lost because of inadequate assortments and sizes. It is the familiar pattern of 1949 over again, and the market in that year made a definite turn toward sustained progress in early July. On the supply side, there are further indications that the recession phase of the textile cycle has about run its course and will soon give way to more constructive and healthy markets. Evidence is growing to establish the belief that price cutting has been abandoned as a typical industry policy in favor of production curtailment. This is characteristic of the final phases of textile recessions, as the darkness which comes before the dawn.

In the first four months of 1954 experience, such adjustment has already registered a 14 per cent drop in cotton consumption and a like decline in spindle hour activity from the corresponding period of 1953. At this rate, the first half of 1954 is expected to show a decrease of around 800 million square yards from the quantity made in the first half of 1953. In all likelihood this final phase of adjustment will continue progressively into the Summer months and add to the normal vacation decline. The natural outcome is that mill surpluses will no longer be available for ready shipment and the chances of improvement in textile values will be greatly enhanced.

Certain areas of the market already begin to reflect these changed conditions in the area of supply. Unprofitable offers for future delivery have been rejected and fractional gains have appeared in the firming of market prices. Relieved from the pressure of marketing full time production under adverse conditions, sellers once again can insist on a fair share in determining the trend of both values and distribution. Upon their attitudes and intelligent efforts, now depends, as it did in 1949, the chief responsibility for restoring health to textile markets. Whether market recovery in 1954 comes quickly or gradually it will inevitably be accompanied by a renewal of confidence in forward transactions and a better appreciation of the worth of trade inventories as a source of mercantile gain.

## S.R.R.L. — Could Be Abbreviation For 'Some Realistic Research Leadership'

By HAZEL TROTTER

**You can go to practically any technical meeting in this industry and find listed on the program at least one S.R.R.L. representative. What is it? How did it get started? What does it do? Is it paying off?**

**T**HE textile industry and the cotton producer are reaping tremendous profits from the research work that is done at the Southern Regional Research Laboratory in New Orleans, La.

For many years, the textile industry has realized the big part research must play if the mills are to operate successfully. The importance of the many experiments underway at New Orleans was indicated by the large number of textile executives from all over the country who took the time to visit the laboratory a few weeks ago when they were in the Louisiana city to attend the annual convention of the American Cotton Manufacturers Institute. They found a welcome from C. H. Fisher, director, and special assistants A. M. DuPre' Jr. and P. R. Dawson, and were taken on tours of the building and shown just what progress is being made on several interesting projects.

Authorized by Congress in 1938 as one of four regional laboratories to develop new and extended outlets for farm

crops, the New Orleans establishment is a unit of the Agricultural Research Service of the U. S. Department of Agriculture. Its handsome brick building, situated on a 40-acre tract donated by the city of New Orleans, was completed in 1941. Its nearly four acres of floor space houses offices, a library and service shops, laboratories, and pilot plant equipment. Its personnel of 350 includes about 200 professional people, one-half of whom are concerned with cotton.

In discussing the agency's work with cotton, Mr. DuPre' pointed out that very closely tied in with its purpose is the aiding of the competitive position of cotton from the standpoint of the producer. Unless the laboratory can get its products picked up by the purchaser, it has not succeeded in achieving its purpose, he said. In listing some of the products developed by the laboratory, he spoke, first of all, of the special bandage produced for the Navy and now officially adopted by the Department of Defense for civil defense stockpiling. This bandage, which cost from \$30,000 to \$40,000 for the first 30,000, has already saved the government more than \$5 million, he added.

It is designed to conform to the contours of the body yet is sufficiently elastic to permit freedom of movement and circulation of blood. A chemical treatment given to ordinary open-weave cotton gauze results in elastic proper-



ties which make the bandage stretch easily in both directions. Thus, it is essentially self-fitting and self-tightening when applied with moderate tension.

Another interesting product is the flame resistant treatment, THPC, developed in co-operation with the Quartermaster Corps and the textile finishers. Several problems must be licked before the laboratory officials can say this is flameproof but the treatment is capable of making a fabric highly flame resistant without destroying tear strength and other qualities. This is especially interesting in connection with the federal flammable act, which goes into effect July 1 and applies to wearing apparel. The treatment has been used successfully for household and clothing fabrics, draperies and other materials. It is believed that THPC can be made on a large scale at a price low enough to permit it to be used commercially as a flameproofing agent.

A new loom attachment developed at the laboratory enables a standard textile loom to weave abnormally dense fabrics and can be used, also, to improve the appearance and strength of other fabrics. The material produced is highly resistant to the penetration of water and air and may be used without chemical treatment in the manufacture of tarpaulins, awnings, tentage, raincoats and specialty products when heavy or densely woven materials are needed. The attachment results in improved appearance and greater strength when used in weaving broadcloth, printcloth and light duck of normal density.

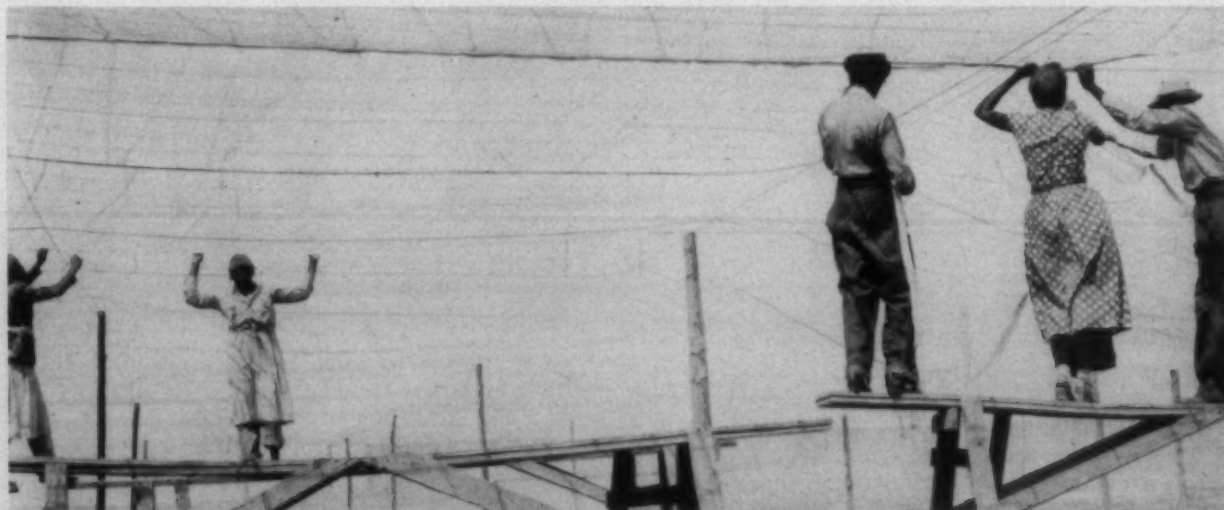
Mr. DuPre' said some of the fabric produced with this attachment is still good after its fourth season on the batters' and pitchers' boxes of baseball diamonds. The attachment might be used, he continued, to weave a light type cloth to take the place of heavy duck for awning fabrics. However, the tear strength of this material has been found to be lower than that of the corresponding weight of duck. The laboratory has recently begun an intensified program in search of an improved awning fabric for the National Canvas Goods Manufacturers Association.

Much research is being done to develop improved processes for the cleaning of mechanically harvested cotton. This is of great interest to the cotton producer for the penalty runs anywhere from \$10 to \$50 a bale for cotton with much trash in it—the amount depending upon how much there is. This field of cleaning cotton is being given

intensive study because of its importance. The opener developed by the laboratory in 1950 contributes to the solution to some extent but the problem is still far from solved. The opener opens baled cotton to a loose fluffy condition, similar to that of lint right after ginning and before baling, thus permitting improved cleaning of the fiber in conventional textile equipment and reducing the amount of spinnable fiber removed with the trash. Since the announcement of the completion of the opener, 75 of these machines have been installed in textile plants and a number of others are on order. Four equipment manufacturers are making it. The machine, known as the S.R.R.L. opener, has been described by industry spokesmen as one of the outstanding developments in textile equipment in the last 25 years.

What chemistry can do to cotton is revealed in the laboratory's work in production of water-soluble cotton. A few of the many uses for this product are cited by Mr. DuPre' as: production of novelty fabrics, lofty woolen goods, laces, open work materials, basting threads, weaving of imitation Astrakan fabrics, printing of loop fabrics, and in other cases where a yarn is needed temporarily but is subsequently removed by washing with water. Several companies have used soluble cotton experimentally to produce new products or improve old processes, and one firm is reported to be planning to turn it out commercially for an undisclosed use.

Among the more recent developments is the Nepotometer, an instrument for predicting the tendency of raw cotton to form neps, which was announced early this year. Research was done by the Department of Textile Research at North Carolina State College. J. F. Bogdan, director of processing research, and C. M. Asbill Jr., head of the Department of Machine Design and Development at the college, were developers and designers, and R. J. Cheatham was the specialist representing the Department of Agriculture on the project. The contract under which the Nepotometer was developed was supervised by the Southern Regional Research Laboratory. Heretofore, no reliable means has been available for predicting the number of neps that would be formed during the processing of a given cotton. The new instrument, however, predicts the comparative "neppiness" of cotton in processing and classifies cottons into one of a number of standard classes according to their nepping ten-



Open-weave cloth is being erected to preserve the shade-grown tobacco in this north Florida field. The U.S.D.A. Southern Regional Research Laboratory in New Orleans has shown that cotton cloth treated with a lead chromate pigment (yellow) will outlast untreated cloth by three or four to one.

dencies. Thus, cotton mills, breeders and merchants are given a direct measure of nep-forming tendencies and can purchase or select cottons best suited for the particular type of goods to be produced.

The Southern laboratory has brought about other important developments which are described in patents and in hundreds of published technical papers. Acetylated cotton highly resistant to mildew, rot and heat is one of them. Another is a machine to cut short staple cotton and cotton wastes into a linter-like product. It has prepared information demonstrating that dyed and printed fertilizer bags have re-use value in making wearing apparel. Improved methods for extracting Southern oilseeds, processing data on fibers and glues from cottonseed and peanut protein, and many advances in the knowledge of chemistry, physics and engineering are the results of the laboratory's work.

Its cotton chemical processing division is divided into three sections. The modified section conducts research on the modification of cotton by chemicals to impart new properties. An example is the process of mercerization for increases in strength, luster and dyeing capacity, or to make special products like the semi-elastic conforming gauze bandage. An example of actual chemical reaction is partial acetylation, particularly to impart high resistance to heat and rotting.

The addition section conducts research both on laboratory and semi-commercial scales to improve the quality of cotton fiber, yarns and fabrics by adding suitable chemical compounds. It investigates current finishing compounds and processes and applies on a pilot plant scale new chemical finishing compounds designed to improve the properties of cotton textiles.

In the new products section, research on the chemical modification of cotton is performed to add new and useful properties such as rot resistance, weather resistance, water repellancy, wrinkle resistance, improved dyeing properties, reduced flammability, and others.

The analytical, physical-chemical and physics division has four sections. Its analytical section does service analyses for the research divisions of the laboratory; modifies, adapts and develops new analytical methods where they are needed, and conducts research on the chemical composition of commodities.

The physics section does analyses in the specialized fields of ultraviolet, visible and infra-red absorption spectroscopy, emission or spectrochemical analysis, X-ray diffraction, microscopy and photomicroscopy, fluorescence, spectral reflectance and color evaluation, index of refraction, and optical rotation. It performs research on methods to do these services, and, in co-operation with other divisions, to characterize the chemical composition of commodities assigned to the laboratory.

The physical chemical section carries out physical chemical procedures and makes measurements of physical properties as a service for the research division. Involved is short-term research pertinent to the various investigations of new and improved methods of analysis, the purification of organic compounds and solvents, and the development of basic systematic physical chemical data as required.

The textile testing section performs physical tests on textiles materials—fibers, yarns, cords and fabrics—primarily for the cotton research divisions of the laboratory. It modifies, adapts and develops new textile test methods as they are needed, and applies special techniques for evaluating and comparing new textile products.



Reeves, Guthrie

Among developments of the New Orleans laboratory is THPC, a process for flameproofing cotton through use of a phosphorous chemical. Shown are Wilson A. Reeves and John D. Guthrie, the developers, treating some cloth on a laboratory padder.

The cotton fiber division has a chemical properties section which investigates processes for the chemical modification of cotton fiber to improve physical and chemical properties and make it more suitable for a particular use. During chemical modification, all or part of the cotton cellulosic material is transformed into other chemical products while retaining the fibrous character of the cotton. The resulting fiber may be flameproof, rotproof, creaseproof, or may have other properties which extend its usefulness in particular fields.

The microscopical properties section seeks to learn the effect of chemical treatments on cotton fiber, while the physical properties section develops or modifies equipment or test procedures for measuring physical properties of cotton fiber, studies the inter-relationship of fundamental physical properties of cotton fibers, due to varietal characteristics, mechanical treatments or chemical modification, and of the properties of the resulting textile product.

Research on the fine structure of cotton is conducted by the colloidal properties section. Ways of chemically modifying the fine structure of a textile material without loss of the fibrous form are studied, and chemical and physical methods are used, developed and modified as needed for determining the nature and properties of the products. X-ray, viscosity, and ultracentrifuge measurements are made.

The cotton mechanical processing division has a machinery and methods section which conceives, designs and develops new and improved equipment and instruments to improve the quality and lower the processing costs of cotton products. Model and pilot-plant size machines are built and evaluated. Its processing section conducts research on standard textile equipment, using untreated and chemically modified cottons of known variety to determine the processing organization—unit weights, machine settings, drafts, twists and speeds—that will give top quality and lowest processing costs. Its new products section determines the effect of important fiber properties on yarn and fabric properties and the effect of fabric structure on the physical properties and serviceability of fabrics. It designs and develops cotton products to meet specific use requirements.

The cotton section of the engineering and development division develops to pilot-plant scale processes to give improved properties to cotton fiber by special treatments. It prepares new cotton fiber products in sufficient quantity for thorough evaluation.



# They Hollered 'Fore' And 'Pull' During Carolina Yarn Outing

**R**EGISTRATION at the 1954 outing of the Carolina Yarn Association held at Pinehurst, N. C., May 13-15, was the largest in the history of the association. Total registration was 564, about five per cent higher than last year, despite the first bad weather the event has seen in many years. A steady rainfall accompanied by chilly winds and deeply overcast skies prevailed during most of the outing—a far cry from the ideal weather traditionally “included” in the activities. Despite the elements, most of those attending participated in the golf and skeet events.

Leon M. Ham, American Viscose Corp., Charlotte, N. C., and C. W. Stuart, E. I. du Pont de Nemours & Co. Inc., Charlotte, shared golfing honors by carding low gross and net scores of 139 and 135, respectively. Mr. Ham had a net of 136 and Mr. Stuart grossed 205.

In the skeet shoot, F. W. Warrington of F. W. Warrington Co., Charlotte, was tournament winner, scoring 48 out of a possible 50 with a .20-gauge shotgun.

The Calloway system was used in computing golf scores and the Lewis system was employed in the skeet shoot. In the skeet shoot, for the first time, class order in the selection of prizes was determined by a drawing. The new procedure for prizes was devised to give all the contestants an equal chance for the better prizes despite their shooting ability.

Subsequently, in the drawing, Class D winners were allowed first choice of prizes.

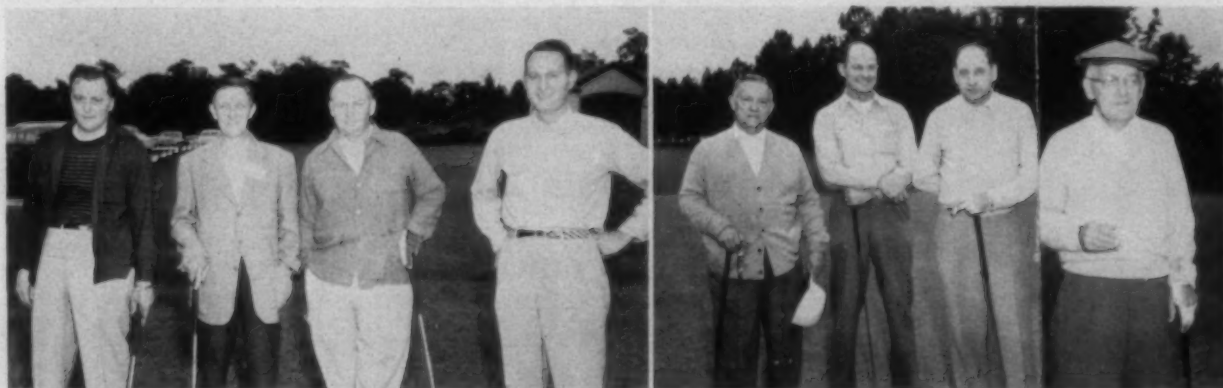
Other winners in the skeet shoot, by classes, were as follows: Class A—Von D. Oehmig, Crompton Richmond Co. Inc., New York, who scored 47 out of 50; Frank Peak, Angle Silk Mills, Rocky Mount, Va., 46; Jim Rogers of John Stickley Co., Charlotte, 46; and Jack Holbrook, American & Efrid Mills Inc., High Point, 45.

Class B—Harold Amos, Amos Hosiery Mills, High Point, 42; Bill Dodson, Smith Drum Co., Philadelphia, Pa., 42; Joe Ballentine, Smith Drum Co., Parrott & Ballentine, Greenville, S. C., 41; Earl Wentz, Roanoke (Va.) Mills Inc., 40.

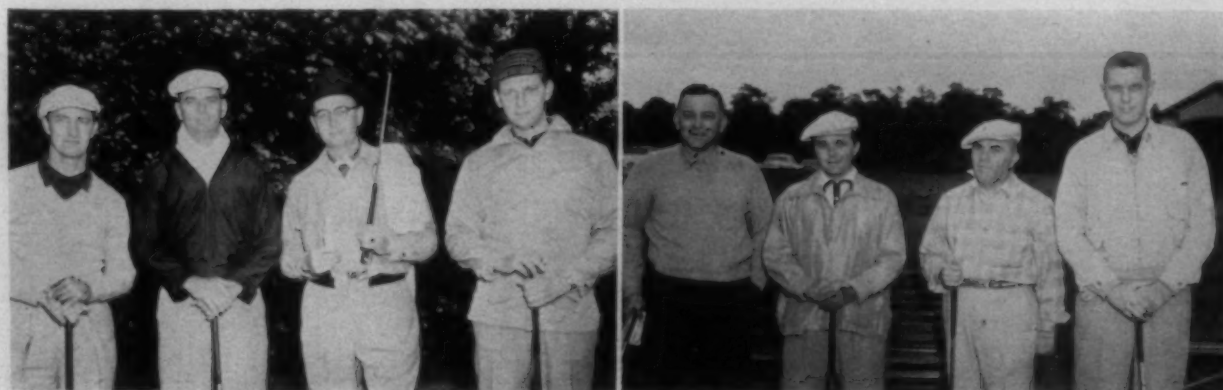
Class C—Joe Smith, Barnhardt Bros. Co., Charlotte, 36; B. J. Faucett, Scott & Williams, New York City, 35; W. H. Curlee, Amazon Cotton Mills, Thomasville, 35; Dick Grey, Richard Grey Hosiery Co., Asheboro, 34.

Class D—Paul Mauney, Neisler Mills Inc., Kings Mountain, 29; George Galphin, American Viscose Corp., Charlotte, 29; W. F. Wyatt, Wyatt Hosiery Co., Sanford, 29; Marvin Evans, 29.

Class E—Charles Amos, Melrose Hosiery Mills Inc., High Point, 26; Bill Mauney, Mauney Hosiery Mills, Kings Mountain, 26; Jim Lybrand, Carter Fabrics Corp., Greens-



C. L. Cayden, C. R. Hall, M. B. Carr and D. C. Smith——Joe Pell, Harry Mullen and Leroy Stadler——J. A. Emenheiser.



Wayland Stuart, Lewis Harrison, Robert Small and Dick Trapnell——A. M. Saunders, Frank Ix III, Frank Ix Jr. and Bill Harmon.



boro, 25; W. F. Frank, Sale Knitting Co., Martinsville, Va., 25.

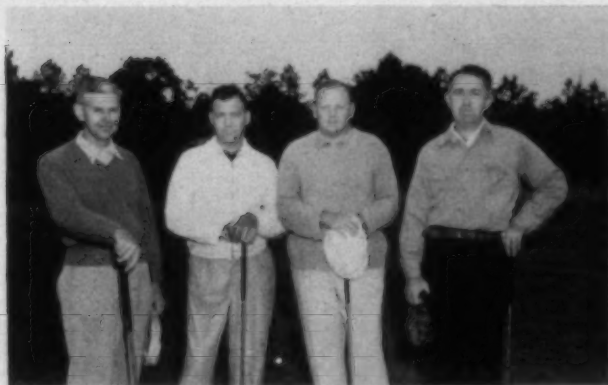
Class F—W. A. Wood, Duplan Corp., Greensboro, 21; Charles New, Deering, Milliken Service Corp., Greenville, S. C., 20; Louis Garrou, Waldensian Hosiery Mills Inc., Valdese, 20; John Tully, Roanoke (Va.) Mills Inc., 19.

Other prize winners in the golf tournament and their scores: McDaniel Jackson, American Viscose Corp., Charlotte, 214 (gross)—70 (handicap)—135 (net); E. E. Chapman, Tower Hosiery Mills, Burlington, 149-10-139; L. Cramer, American Viscose Corp., Charlotte, 235-99-136; I. B. Grainger, Full-Knit Hosiery Mills Inc., Burlington, 149-10-139; C. L. Hayden, American Enka Corp., New York City, 177-40-137; Lee Pickens, John L. Stickley Co., Charlotte, 149-10-139; George Lyles Jr., Lyles Hosiery

Mills, High Point, 161-24-137; J. W. Wood, Aragon-Baldwin Mills, Rock Hill, S. C., 152-13-139; E. Berliner, Klopman Mills Inc., Asheboro, 222-85-137; D. Cunningham, Hickory Throwing Co., Greensboro, 153-11-142; Lannier Branson Jr., Duffy Silk Co., 154-16-138; C. W. Causey Jr., American Thread Co., Greensboro, 154-13-141; P. R. Tamplin, B. F. Goodrich Co., Akron, Ohio, 202-64-138.

Warm praise was extended the members of the prize committee for their selection of prizes. McDaniel Jackson was chairman of the committee; W. J. Yates and R. M. Salisbury were members. Mr. Jackson estimated the value of the total prizes at \$3,300, including door prizes.

H. Gordon Kenna, chairman of the golf tournament, was unable to attend the outing due to illness. Other members of the golf committee filled in for him. They were:



Carlyle Isley, Sam Ross, Jim Martin and Alex Bell—



E. J. Neal, J. V. Benfield, Bill Vetterlein and Bill Sharpe.



Mac Jackson, Mack Shipman, Sam Stallings and Don Maddox—



Charles Sutherland, J. O. Austin, H. H. Richardson and F. J. Barrows.



Ernest Hunter, Jim Crenshaw, J. H. Eble and H. Stu Campbell—



Frank Barrie, Paul Hemmerich Jr., William L. Paulhamous and Paul Hemmerich Sr.

Jim MacDougall, Charles Ibach Jr., Hill Wellford and W. D. Clark.

Other committees: invitation—Charles E. Boger, chairman; Lee Pickens and Pen Wilson, members; skeet—James Rogers, chairman, W. C. Dodson and F. W. Warrington; refreshments—William A. Towle, chairman, and J. M. Owens; entertainment—Frank P. Barrie, chairman, and Fred Barrows.

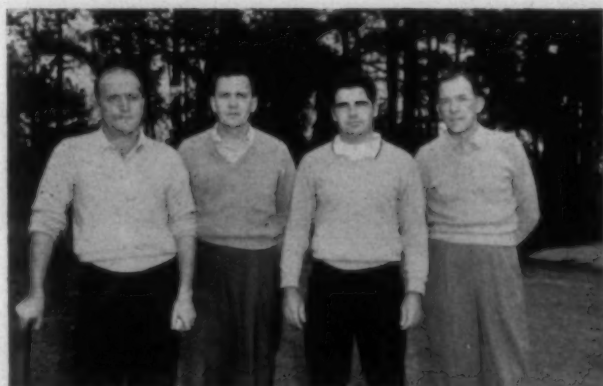
The annual banquet and floor show were held in the ball room at the Carolina Hotel. Prizes were awarded following the banquet.

Members of the Carolina Yarn Association are: Aberfoyle Mfg. Co., American Bemberg Corp., American Enka Corp., American Thread Co., American Viscose Corp., American & Efrid Mills Inc., C. A. Auffmordt & Co.,

Barnhardt Bros. Co., Cannon Mills Inc., Carolina Process Co., Celanese Corp. of America, Comer Avondale Mills Inc., Cosby & Thomas, William H. Crenshaw, Dixie Mercerizing Co., Duffy Silk Co., The Duplan Corp., E. I. du Pont de Nemours & Co. Inc., The B. F. Goodrich Co., Grove Nylon Co., Oscar Heineman Corp., Hemphill Co., Hickory Throwing Co., William T. Cheatham Co., Industrial Rayon Corp., Johnston Mills Co., Kahn & Feldman Inc., Kaumagraph Co., Lassiter Corp., Leon-Ferenbach Inc., John P. McGuire & Co., North American Rayon Corp., Paramount Textile Machinery Co., Pickett Cotton Mills Inc., Sellars Mfg. Co., Smith-Drum Co., Sonoco Products Co., Southern Franklin Process Co., Southern Mercerizing Co., Standard-Coosa-Thatcher Co., John L. Stickley, Eastman Chemical Products Inc., Textile Banking Co. Inc.,



Louis Cramer, William M. Barnhardt, R. A. Katzenmoyer and Bernard Wright—Donald Fisher, Jim Hendley, W. H. Cooke and John T. Kilpatrick.



A. O. Wellman Jr., T. C. Worth, Jr., John J. Ryan III and D. Scott White—Joe Bird, George Friedlander, W. A. Wood Jr. and Jack Leath.



Bud Johnson, Fully Huntley, Darden Hampton, Ralph Ewing and John L. Stickley—R. G. Woodbury and Lonnie Huffstetler.

Textiles Inc., Textile Machine Works, The Torrington Co., Universal Winding Co., Atwood Div., United States Testing Co., Waddill Printing & Litho Co.

Associate members: Richard V. Butler, Collins Yarn Co. Inc., Crompton-Richmond Co., Cross Cotton Mills, Durham Spinning Mill, Division of Durham Hosiery Mills, John E. Fox, Hickory Dyeing & Winding Co., Hubshman Factors Corp., William Iselin & Co., Harold Mahon, Madison Throwing Co. Inc., Meinhard Co. Inc., National Credit Office, Royersford Needle Works, John J. Ryan & Sons Inc., James E. Taylor Co., Trust Co. of Georgia, Wachovia Bank & Trust Co., F. W. Warrington, The Elmore Corp.

Reid Murphy, Signal Knitting Mills, Chattanooga, Tenn., and W. H. Sutenfield, American Thread Co., Mt. Holly,

N. C., won low net honors of the guest and host flights, respectively, at the recent golf outing of the Chattanooga Yarn Association. Mr. Murphy grossed 179 and his handicap of 56 gave him a total of 123 net. Mr. Sutenfield's gross was 187, handicap 52 and net 135. The annual 36-hole tournament was held at the Chattanooga Golf and Country Club.

Runners-up in the tournament were, guest flight, Marion C. Slayton, Richmond Hosiery Mills, Rossville, Ga., with a score of 187-60-127; and in the host flight, D. S. Brewster, Oscar Heineman Corp., Chicago, Ill., with a score of 192-56-136.

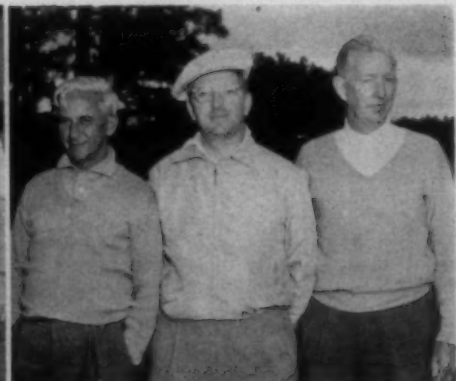
Other activities, including the annual banquet at which prizes were awarded, were held at the club. Skeet shooting was also available to hosts and guests.



W. J. Yates, Bill Allen, Jack Holbrook, Charles New, Lon Nave and Louis W. Garrou—F. W. Warrington, Wilbur Evans, H. R. Neisler, J. O. Foil, Guy Sowden and J. A. Lybrand Jr.



Dick Grey, D. L. Copenhaver, W. F. Wyatt, James E. Taylor, Paul Mauney and B. B. Shaw—Russell Estey, Jim Rogers, Bill Austin, Herb Wade, Harry Curlee and Bud Wellman.



A. D. Irving, R. S. Flood, J. C. Thompson—Charles Palmer, Rod Hall, Charles Wood—J. R. Gaither, Charles New and J. W. Mitchell.



# Modern European Textile Machinery

By F. E. BOZEMAN, Southern Agent, Atkinson, Haserick & Co.



Americans usually are inclined to think of themselves as superior in nearly everything, but according to Mr. Bozeman ideas continue to be hatched in Europe. His address was delivered May 8 during the Spring meeting of the Piedmont Division, Southern Textile Association, held at Hickory, N. C.

ONE of the things that characterizes European machinery is the beauty of its finish. I don't believe there is anything in the world more beautifully finished than European textile machinery. You have probably noticed that in exhibits here in the United States, where some of it has been displayed.

What is the advantage of having machinery beautifully finished? In the first place, it is easier to keep clean. Lint will not stick to it, and what does collect on it is easier to get off. Another advantage is the effect on the personnel. People naturally like to be around something that is pretty. If the machinery is colored, beautifully designed, highly polished, the operators are just naturally going to take better care of it. It is natural to take better care of a pretty piece of machinery.

One thing that astounded me is the rapidity with which machinery is produced in the European shops. They have adopted the principle of streamlining that is used in our automobile factories. I have seen a card finished in 40 minutes and 60 complete cards built in a week. It is the same with spinning frame and other machines. That is because they are made on jigs and fixtures. They are bolted on, and when the machine reaches the end of the line it is assembled, ready to be shipped out.

What is the advantage of that? The advantage is that when you get supply parts your mechanic does not have to waste time fitting those parts to the machines. He just bolts the piece on, and it fits. That advantage is very apparent, and a number of textile men in this country have told me how they have been impressed by the fact that parts shipped in for European textile machines do not have to be fitted but are just bolted on.

Another thing that impresses me about European machinery is that it is so well-guarded. The latest picker that has been developed is the most beautiful machine I have ever seen. It is all enclosed; there is not a belt or pulley to be seen. That comes about partly as a result of the safety laws, which are much more stringent over there than they are in this country. You can't lift a gear cover or anything else without the machine's stopping. That is the result of their safety laws. If you have a door open in the rear of the machine it is impossible to operate the machine until that door is closed. Sometimes, you know, a fixer is doing something to a machine and has the door open and the fellow at the next machine, perhaps, comes along and

starts up the machine. The fixer is fortunate if he doesn't lose a finger.

I saw a new spinning frame that has a stationary ring rail and a movable spindle rail, with a 49-inch traverse—or lift, as they call it over there. The spindle rail moves up the entire distance of the traverse. Here is the idea behind that. As you know, there is a big variation in the tension of your yarn, and it is impossible to have a traveler that will take care of that tension during the entire length of the traverse. Consequently you have to reduce the speed of the traverse. But if you have a spindle rail that moves up and down, you see, the tension never varies. The result is that you can maintain a higher spindle speed and, naturally, a higher front-roll speed, where the actual pay-off comes. With your higher traverse speed you have less tension.

There is also a new worsted machine made in Europe which has not yet been introduced in the United States. That is the Raper Auto-Leveller. It is something like the drawing machine for cotton. Although the top going into the machine may be very uneven, the electronic controls increase the speed of the back roll and automatically compensate for the variation of the sliver being fed in, and the result is that the sliver comes out very even. Some day that will be adapted to the cotton drawing frame, because there is no reason why it could not be.

Another machine which has created considerable interest in this country is the Shirley opener. I am sure most of you are familiar with the Shirley analyzer, which is used in laboratories. You know what a splendid job of cleaning that does on a sample of cotton. The Shirley analyzer is such an excellent machine for cleaning that there was a tremendous demand on the Shirley Institute to bring out a production machine that would do the same thing. There are three of those openers now in operation, one of them in the United States; and the results with that machine far exceed anything that has been reached before it.

Another machine which has been created and which will soon make its debut in the United States is a new type of twister in which there are no gears. If you want to change your twist you do so by turning a dial. That dial is locked by a key to which only certain persons in the mill have access. The machine has a snake drive. There is a composition belt which is turned by idlers driving over the foot end of the machine. You can see that this machine without gears is going to be very quiet. The only noise is the windage on the bobbins themselves. That application of the principle of a gearless frame means it is the first step in the direction of the manufacture of all machinery in that way, at least to some extent, and you can readily see that with gearless frames the noise in the mill will drop considerably. The maintenance will also drop considerably. You are familiar with the fact that noise has a definite effect on the workers. The quieter we can make the mill the happier the employees will be and the better work they can do.

Another thing that European machinery manufacturers do is that, unknown to the foreman or anyone else con-



Stafford, Willard, Estes, McCrary

Officials of the Southern Textile Association are shown following the meeting of its Piedmont Division at Hickory, N. C., May 8: T. I. Stafford, 1953-54 president of the S.T.A. and production manager for Clifton (S. C.) Mfg. Co.; C. S. Willard, superintendent of the Rhodhiss (N. C.) Division of Pacific Mills and newly-elected vice-chairman of the division; H. C. Estes, Rhodhiss superintendent, retiring chairman of the division and recently-elected second vice-president of the S.T.A.; and R. M. McCrary, superintendent of Carolinian Mills Inc., High Shoals, N. C., new chairman of the Piedmont Division.

cerned, the top management of the company will periodically meet in one of their plants, where they will go out to the shipping room and have unpacked a machine that is ready for shipment. They have that machine taken out and assembled, so that they themselves can see that it is what it should be. That is a constant check, because the time of such a visit is unknown to the manager of that plant or the foreman or anyone else and unknown to the top management probably until the day they do it. The result of inspection of that type is that the foreman and workers in the plant are always on their toes because they never know when they are going to be called upon to unpack one of their machines and assemble it. There is no stone left unturned over there to manufacture a machine as fine as they can make it.

At the Atlantic City show there was a loom running 240 picks a minute. I have had several people ask me if it ran at that rate all week. Unfortunately it did; I know that because our exhibit was only ten feet from it. That had been stepped up from 210 picks a minute. At the Manchester show it was running 230 picks a minute. The reason it can be operated at that speed is the precision with which it is made. If the tolerances were not so close it could not run at that rate of speed.

At 16,000 r.p.m. it is practically impossible for a spinner to put up an end. When the machine doffs the spinner goes on and puts up the ends, while the machine is doffing itself. Suppose you had a roomful of these machines. I know that on Friday you begin to clean up your mill and blow off; then on Monday, when you start up, you sometimes have to reduce your speed. That is the result of blowing off. You get the slubs and gouts all down in the bobbins as the result of blowing off. Suppose that machine is developed in the next ten years, as it will be. When you shut down the mill Friday night you push the button to doff. You need only a skeleton crew in there to look after the machines, and they are probably on straight time anyway. That machine runs on, doffs itself, and stops. When you come in on Monday morning you can blow off; or you can do it on Saturday afternoon when the overseer is there, although he probably would like to go fishing. But think of the free work you will be getting.

The developments in the next few years I think will be astounding. It all comes from research, from willingness to try to make a better product; and a lot of it comes right from the men in the mills. Even in Europe I think that is so. It comes from the men in the mill. They ask the machinery manufacturers why they don't do this or why they don't do that, or that take the agent of the manufacturer into the mill and show him some little gadget they have worked out. All that results in improvement. So everybody has a part in developing new machinery.

The Atlantic City show was in most respects, I think, very successful. Some fellows complained that it was not worth going up to see; and possibly it was not, because you can see those various machines in some of the mills. But it gave you an idea of what is possible; it made you think of the possible development in the future. You have been able to see what has gone by in the past and can possibly visualize what is going to be done in the future. There has always been the idea of putting a bale of cotton in at back and running it through a line of machinery and pulling out a piece of cloth in the front. That seems a fantastic idea, but we may live to reach that Utopia. The amount of labor in producing a pound of yarn is greatly reduced from what it was previously. We can look forward to such development of machinery through research that labor will be still further reduced; and we shall have machines that will be safer to operate, machines more beautiful to look at, machines whose parts fit perfectly.



Estes, Bozeman



Johnson, James, Delany, Stutts, Estes

At left, F. E. Bozeman of Atkinson, Haserick & Co. addresses the Piedmont Division of the Southern Textile Association; seated is H. C. Estes, chairman. At right, F. M. Johnson, research director at the Rhodhiss (N. C.) Division of Pacific Mills, leads a panel discussion on new and significant displays at the recent American Textile Machinery Exhibition. Panel members were: J. L. James, manager of Erwin Mills Inc., Cooleemee, N. C.; J. L. Delany, general superintendent of Joanna (S. C.) Cottons Mills; R. T. Stutts, president and treasurer of Carolinian Mills Inc., High Shoals, N. C.; and Mr. Estes, general superintendent for Pacific at Rhodhiss.



## *Opening, Picking, Carding & Spinning*

# Care (But Not Feeding) Of Card Clothing

By JOHN M. REED, Southern Manager, Ashworth Bros. Inc.



**Mr. Reed, in prefacing this address before the Spring meeting of the South Carolina Division, Southern Textile Association, at Ware Shoals April 15, made this remark: "I have learned, when listening to comment**

**on controversial subjects, to take that part which appealed to me and to leave alone that part or parts that had no appeal to me. On that basis we will go ahead."**

**T**HE subject "Care of Card Clothing" should be broken down into perhaps four separate categories, somewhat as follows: (1) storage after receipt at mill and immediately before application; (2) preparation of card for clothing; (3) actual application of card clothing; and (4) care of card clothing after application and during the useful life of the card clothing.

I believe that all card clothing manufacturers agree that card clothing should be left in the shipping cases until ready for use. These cases should be stored in a warm, dry place. They should be elevated some distance from the floor to avoid water damage should the floor become flooded. When the card clothing is required by the card room, the cases should be carefully opened, that clothing which is to be used removed with a great deal of care, and the case should be then nailed up again with the remainder of the clothing not to be used at that time. The clothing that is to be used should be taken to the card room in its original wrappings, being handled very carefully enroute, and should be allowed to remain in the card room at least 24 hours before the actual application is begun. Whenever possible, each fillet should be unwound in a doffer box and allowed to remain in this loose, open condition long enough to condition itself to room temperature. Probably one-half of the cylinder fillets applied are "pre-stretched" at 250 to 275 pounds on full two-inch width of fillet. Those who prefer this method claim better seating of wire in foundation, smoother application requiring less grinding, and even go so far as to claim fewer raised or blistered cylinder fillets.

In connection with opening the cases and the handling of the clothing, those people charged with this responsibility should be carefully coached in the handling of the product, and they should be carefully impressed with the fact that the product can be very easily damaged through carelessness in handling, and can be absolutely ruined by contact with any liquid.

Card clothing should never be left to the tender mercies

of the curiously idle who must feel everything they see. Much damage has been done to card clothing by leaving it unguarded and unattended and at the mercy of such people.

More care should be given to the preparation of the card which is to receive this very expensive product than you have given in the handling of the product to the card. The product will run on the card for a considerable number of years, provided the card itself is put into condition to receive the product. The procedure for preparing a card for reclothing is somewhat as follows:

(1) Cut out feed. Strip cylinder and doffer with stripping roll. Let card run free of stock.

(2) Stop card. Remove all waste under card, between frame sides, and inside flats at back stand.

(3) Replace all worn bearings and shafts on cylinders, doffers, lick-in's, and feed rolls. Total wear between shafts and bearings at these member points should not exceed total amount of setting to gauge. For example, lick-in to cylinder is usually set .007-inch. When wear between shaft and shroud totals .007-inch, repairs should be made.

(4) Line and level card. Cylinder should be evenly spaced between frame sides, and doffer lined up with cylinder.

(5) Remove all oil-soaked plugs and low plugs. Drive shoe pegs into old tack-holes. Finish new plugs even with cast-iron surface. Care should be taken in sawing plugs so as not to saw into surface of cylinder or doffer. Extreme care should be used in selection of plugs. Each make of card requires a particular size and taper. All selvage plugs should be cut off even with under side of cylinder to prevent possibility of plugs being knocked up from chokes in sides of cards. Raised plugs will cause damage to cylinder clothing. Suggest that screens be removed for inspection and repair and to facilitate applying cylinder clothing.

(6) Cylinders and doffers which are out of round more than .009-inch should be surface-ground to save undue grinding of fillet wire and to assure good setting and quality work.

By the time the card has been put into condition to receive the fillets, the fillets themselves should have reached the proper condition to be applied to the card—assuming, naturally, that they have been in the card room for 24 hours or more, pre-stretched or left loose in box.

We now come to the actual application of the fillet to the card. Here again, much damage can be done to the card clothing before a pound of production is put through the card, through poor training of the individual assigned to the job of applying the card clothing. This is one of the most tedious jobs there is to do in a cotton mill; and the man picked out for it should have had some years experience in card maintenance, card grinding and setting, before attempting to learn the intricate art of applying card clothing. A person with such training as his background for becoming a card clothier will have much more respect for the product he is handling. It is also very important that proper tools and equipment be furnished the clothier.

After the card has been clothed, it should be carefully ground and set up. Poor setting has been responsible for



## OPENING, PICKING, CARDING & SPINNING

permanent damage to many cylinder fillets, doffer fillets, and sets of flats. Here, too, the person doing the work must know what it is all about, and must be well grounded in card maintenance and knowledge of just what the card is expected to do.

Assuming that the card clothing has been handled without damage from the supply room to the card room, has been correctly applied to the card at the proper tension, has been ground as it should be and the card set to gauge at all setting points, you now have the card ready for quality production. The overseer's job is to see that the card continues to produce quality work. The "team" in this endeavor are the overseer, the card grinders, the oiler, and the card hands. The card grinders do the actual maintenance. Keep up their interest, co-operate with them, and the over-all product produced will reflect this community of interest. Incidentally, it will add to the productive life of your card clothing.

The advent of air stripping equipment has interfered with proper maintenance of card cylinder fillets in particular. Brush stripping not only kept the wires neat and clean, but permitted visual inspection of cylinder fillets several times daily. It was an easy matter to notice cylinders laying too far over to one side and to have this condition corrected before a raised or blistered fillet resulted. Immediate corrective attention could be given to jams, which might otherwise result in premature replacement of fillets. Fillets that had already started to rise would be noted, the card stopped off, the fillet redrawn. Opportunity would be given to check on excess oil, condition of tacks, probable trouble with plugs, and many other things that might occur to harm the cylinder clothing.

Some "don'ts" might be more impressive than all the "do's" we have offered; and so, before closing, I give you:

*Don't* give up too many of the old practices, like what happened to the bristle brush each grinder used on fillets after grinding?

*Don't* forget to maintain the tools and equipment used on and around the cards—like traverse grinders and new emery fillet—drum grinders and new emery fillet—flat drum

cradles with worn shoes—sprung wrenches that eventually round off nuts.

*Don't* let too much oil get on any card clothing—flats, cylinders, or doffers. This excess oil can come from traverse and drum grinders, comb boxes, cylinder bearings, etc.

*Don't* forget that a sharp lick-in will remove impurities that a dull lick-in will pass on through the card, thus placing unnecessary load on fillets and flats and shortening life of clothing in general.

*Don't* forget worn feed roll bushings and shafts cause many a jam by letting lick-in jerk lumps through.

*Don't* ever "beat back" a raised fillet. Maybe an inch or two, but anything over that is a pure gamble, and actually costs more in labor immediately than would redrawing the fillet. "Beating back" distorts the pitch of the wire, damages the foundation, and precludes redrawing when fillet rises again, which is the usual result after "beating back."

*Don't* ever grind cylinder, doffer, or flats without first checking carefully for bruises, jams, or other wire damage and correcting. Once a bruise is ground over without having been previously scraped up, you can never scrape the wire up properly, and this leads to early "shedding."

*Don't* set stripper rolls so deep that you knock wire forward and strip off top cotton from foundation.

*Don't* set flat cleaning roll so deep that you strip top cotton from flat foundation, loosening wire in foundation and ruining flats forever.

## Cotton Ginning Research Laboratory Approved

The Senate Appropriations Committee recently approved \$100,000 to start a cotton ginning research laboratory and an additional \$40,000 for the study of the effects of cold upon cottonseed. According to Senator Burnet R. Maybank of South Carolina, the new laboratory will probably be located in the Marlboro region of his state. The Senator said the technicians of the laboratory will study "many new problems" about cotton, including the effects of mechanical picking. He pointed out that the operating expenses of the laboratory will be about \$50,000 a year, mostly in salaries and supplies.

## Results of S.T.A. Carding Questionnaire

¶ Of 18 mills reporting, 15 run cotton only and 3 use some synthetic fiber . . . in respect to normal life expectancy of card clothing, 5 mills expect 5 years, 2 mills expect 7 years, 4 mills expect 9 years, 6 mills expect 10 years, and 1 mill expects 20 years . . . all 18 mills queried expect 8 to 10 years' life from flats and lick-in's.

### Type of stripping system used—

Vacuum . . . . . 15  
Continuous . . . . . 2  
Hand . . . . . 1

### Pounds per hour carding—

5 to 7 pounds per hour . . . . . 2  
8 to 9 pounds per hour . . . . . 7  
9 to 10 pounds per hour . . . . . 6  
12 pounds per hour . . . . . 2  
14.8 pounds per hour . . . . . 1

### Hours run between grinding—

160 hours to 200 hours . . . . . 2  
240 hours to 280 hours . . . . . 8  
280 hours to 320 hours . . . . . 2  
320 hours to 360 hours . . . . . 1  
360 hours to 400 hours . . . . . 1  
400 hours to 440 hours . . . . . 1  
500 hours . . . . . 1  
650 hours . . . . . 1  
Random cycle . . . . . 1

Check-list for items affecting life of card clothing (all mills agree that Items 2, 3 and 4 affect life of clothing; 16 mills agree that Item 1 also affects life of clothing)—

- (1) Proper installation
- (2) Proper grinding and setting
- (3) Too frequent grinding
- (4) Heavy grinding

- (5) Grinding too long at any one time
- (6) Correct grinding roll speeds
- (7) Setting too close
- (8) Use good emery fillet and check frequently
- (9) Proper maintenance
- (10) Check on grinding stands for correct stands and proper use
- (11) Stripper roll setting too deep when hand stripping
- (12) Lumpy laps
- (13) Running tails of laps through
- (14) Oil dropping or migrating to clothing
- (15) Worn bearings
- (16) Excessive humidity

# Getting The Most Life From Your Cots

By ALBERT C. LITTLEJOHN, Sales Engineer, Armstrong Cork Co.

Mr. Littlejohn freely admits that his principal job is to sell cots, but herein does an honest job of advising spinners how to make them last longer. His paper was presented April 15 at the meeting of the South Carolina Division, Southern Textile Association.

**F**IRST and foremost, the proper type cot for the individual job should be purchased, this being based on your experience, as well as the recommendations of your cot service man. Points to be considered include: fiber being run, type frame, type clearers, eyebrowing, lapping, ends down and the quality desired.

After obtaining the best cots possible, the next important step is your roll shop. In preparing rolls for new cots, roll surfaces should be clean and free from oil, grease and glue from previous cots. Normally, rolls are boiled with a suitable cleaning agent to remove these impurities. On some of the new anti-friction rolls, the manufacturer's instructions must be followed to clean the roll boss or shell surface before new cots are applied. It is recommended that air be used in the assembly of the cots to the solid roll or shell. By using air, the cot is expanded some to make it slide on the roll easier—this also prohibits the roll from pushing all the adhesive out of the cot. Normally, in each box of cots there is a sheet of instructions as to the manufacturer's suggested way to apply cots.

Cots should be ordered with the proper hole size—in some instances cots slipping may be attributed to cots being a little large for the rolls. In the manufacture of cots, a tolerance is allowed to insure a tight fit and if your rolls are a few thousandths under size, you might need the next smaller inside diameter size cot.

Next, the buffing machine. Proper equipment in good repair is a necessity for good buffing. A wide face abrasive wheel—either 60 or 80 grit—with a constant surface speed, as well as a uniform traverse speed, gives the proper buffing to the cot. A slow, uniform traverse speed obtained by the

use of an automatic traverse gives a better buffed cot. The roll coverer should be trained by your cot service man as to the proper method of aligning the top carriage of the buffing machine, as well as manner to see that centers, or chucks are running true. The importance of the buffing machine to quality production cannot be over-emphasized. What other machine in your mill directly affects the stock being processed as much? Drawing, or two process drawing, roving—or in some cases two or three processes, and then spinning? In a combed mill the number of processes is even greater. Every roll goes to the buffing machine, and you should give the roll shop the attention and importance it plays in your mill.

Now for rebuffing. In most mills, rolls are sent for rebuffing on the scheduled time for cleaning steel rolls. There are usually one of two methods used to prevent excessive buffing of cots. (1) All rolls from one frame, together with any extra rolls the same diameter, are sent to the roll shop for rebuffing to the next smaller outside diameter. It is the duty of someone in the spinning room to see that all rolls are about the same outside diameter in each box. (2) Another method is to have someone in the roll shop size all rolls before setting the buffing machine for rebuffing. Rolls of various diameters can be put into different boxes and then each size rebuffed, taking off only enough to give a newly buffed surface to the cot. When enough rolls of one size from a frame, plus a few spare rolls to replace any that may become damaged, are finished, they are returned to the spinning room. The extra rolls are usually put in a rack near the frame or on top of the frame, to be used when a roll needs replacing.

Either of these two methods may require a frame or two of extra rolls. But I believe most mills have enough spare rolls to enable them to use one of these systems. A definite system will prevent the waste of cot material in excessive buffing. A tag can be placed on each frame showing when the rolls were buffed and when they are scheduled to be rebuffed. Most cot manufacturers furnish these tags as part of their service.

On shell type rolls, either for the card room or the new

## Results of S.T.A. Spinning Questionnaire

¶ Of 18 mills reporting, 1 prefers cork cots, the others synthetic . . . . in respect to annual replacement of quills based on number of spindles, 2 mills figure  $1\frac{1}{4}$  to 2 quills per spindle per year, 7 mills figure 2 to 3, 2 mills figure 4 quills per spindle per year, and 1 mill reports a 4% annual replacement . . . . reporting mills agree on  $\frac{1}{2}$  to 1 warp bobbin per spindle replacement per year . . . . 1 mill reports using aluminum warp bobbins, with no replacement in 5 years . . . . 8 mills report using the adapter type spindle; all report bolster life better with this type blade.

### Buffing schedule— . . . . .

2 mills report buffing every 3 months  
2 mills report buffing every 4 months  
7 mills report buffing every 7 months  
1 mill reports buffing every 8 months  
1 mill reports buffing every 9 months  
4 mills report buffing every 12 months

### Check-list for items affecting cot life—

(1) Proper maintenance of buffing equipment  
(2) Migrating oil  
(3) Correct weighting of rolls

(4) Traverse roving maximum length  
(5) Buffing too deep to cut  
(6) Match rolls for size to allow minimum to be buffed off each roll  
(7) Hard ends  
(8) Spinners using knives  
(9) Improper use of stand hook by spinner  
(10) Correct humidity for proper drafting  
(11) Correct twist multiplier in roving  
(12) Keep frames clean



## OPENING, PICKING, CARDING & SPINNING

anti-friction rolls for spinning, it is very important to see that the two shells on each mandrel or arbor are buffed to the same outside diameter. To assure this, some mills have the roll shop wrap each two shells in paper—then there can be no mistake. Others use one tote box for each frame, all shells in the box being the same diameter. Still others have the fixer check the two shells in a roll gauge before putting them in the frame. Any of these procedures are satisfactory, provided they are carried out properly. When shells or solid rolls are buffed and stored for any length of time, they should be stored on end in the tote box, or rack, rather than flat.

One factor sometimes overlooked in cot rebuffing is that best quality can be maintained at all times by frequent light rebuffing. This cleans the surface of the cot and allows the ingredients built in the cots to give best results. A deep buffing is not necessary—just enough to clean up the outside surface. This way you have first class rolls and quality production at all times. Middle and back line cots also should be rebuffed at regular scheduled intervals, as these cots definitely affect the running of your work. With the

higher drafts and heavier weights today, the condition of the back line cots becomes more important.

On some of the frames now being manufactured, positive diameter rolls are being used. Since these cots will last quite some time, it is often desired to clean off the natural oils and wax from the fiber which accumulates on the cots. Since these cots cannot be rebuffed, they may be wiped off with a cloth or piece of waste dampened with carbon tetrachloride. This can be done with Armstrong Cork Co. synthetic cots, but before doing this to other types of cots, I suggest that you check with your cot service man.

For the information of your roll coverer, a minimum diameter for rolls and shells in your mill should be established. As cots get small and the circumference approaches the length of staple being processed, trouble may develop. Also, often there isn't sufficient cushion to give the proper control for efficient drafting.

As to the rebuffing frequency, there are many factors that enter the picture—draft, type fiber, type cot being used, condition of bottom rolls, type clearers, and the quality work desired. A point to be remembered is that cot cost per spindle hour or per pound of yarn produced is very low and for best quality at all times, cots should not be allowed to go too long between buffings.

# Processing Fine Fibered Cottons

By JACK D. TOWERY, Textile Engineer, Cotton Research, Texas Technological College

**You are running a mill and in come bales of fine cotton. What are you faced with? Engineer Towery delivered the following paper May 14 at Austin, Texas, during the annual Cotton Merchandising Clinic.**



**I**F written inquiries to our organization can serve as a guide, the interest in this subject is particularly keen in all segments of the industry. It would make us very happy if we could offer a procedure that would enable the use of one cotton as well as another without modifying the processing schedule. Since that is not possible, it is hoped that the following review of the literature and a procedure for the utilization of fine fibred cotton, will help toward a partial solution to the problem.

In 1947 Dr. Barre's group at Beltsville published a booklet entitled "Better Cottons" in which was presented facts uncovered by research. Their discussion of fiber properties was excellent and well worth quoting as follows:

"Fiber fineness is important in spinning, in that it affects both skein strength and yarn appearance. The number of fibers that can be packed into a cross section of yarn at a given count depends upon fineness. The finer the fibers, the greater their number and, it follows, the greater amount of fiber surface area per cross section of yarn. As the size of the yarn diminishes, fiber fineness becomes increasingly important.

"Fineness of fiber depends on two properties—that represented by the perimeter or diameter of the fiber, which is largely an inherited characteristic, and that represented by the thickness of the fiber wall, which may be caused either by genetic or by environmental influences.

"At present, no rapid precise method has been worked out for measuring the two characteristics of fineness. Techniques in current use give considerable information on the over-all effect of fineness but tell very little about the effects that come from differing combinations of cell perimeter and cell wall thickness. Different combinations of the two properties may result in identical measurements of fineness.

"The weight per inch that characterizes a variety is relatively independent of the perimeter except as the size limits cell-wall thickness and weight of the cellulose. A fiber with a small perimeter may have a small surface area as well as a low weight-per-inch measurement. A fiber with a somewhat larger perimeter and thick walls will have a relatively small surface area but a high weight-per-inch measurement.

"Limited data now available indicate that the *perimeter* like the *length* of a fiber, is primarily controlled by inheritance, but these two characteristics may not necessarily be closely associated. Evidence is based on the fact that the majority of upland varieties, regardless of differences in length, appear to differ little from each other in perimeter.

"In most common varieties, wide variation in the thickness of the wall is produced chiefly by fluctuations in the environment. Water stress, potash deficiency, fusarium wilt, and various other factors may cause the fibers to have relatively thin walls."

All of this says that fineness considered independently of other fiber properties can be misleading. One does not



condemn Sea Island cotton because it has a fineness of less than 3.0 micrograms per inch. Yet, when a cotton classer is supplied with fineness figures, he is told that less than 3.0 micrograms per inch should be classified as: poor character, immature, very neppy, wasty fiber, difficult to clean and draft. Makes uneven and neppy yarn, but strong. Reject or use sparingly with coarser cotton.

This description would be very unfair to an average-grade, long-stapled cotton. So fineness must be another fiber measure closely associated with other properties of the cotton. With the advent of instrument measurement of fiber properties, fineness determinations have been made almost blindly. Many mills know from experience that a narrow range of fineness, along with staple, grade, and fiber strength control enables maximum processing efficiency. However, many of the mills are establishing a fineness level that will utilize medium and coarse fiber leaving only the fine cotton for the end of the year use.

The Department of Agriculture has written a number of publications on market outlets for cotton in various types of fabrics. In one publication, fabrics which accounted for two million bales of cotton in 1952 were analyzed in terms of cotton properties and processing characteristics. The purpose was to determine the specific qualities and quantities of American upland cotton being used in the manufacture of cotton textile products. Samples of cotton from each of many mills producing ducks, number ducks, chafer fabrics, ticking, sheeting, tobacco, cheese, shade cloth and combed goods were tested in the fiber and spinning laboratories. The fiber properties for each type of fabric were averaged together and compared. It was found that mills making a similar product were using different qualities of cotton. Yet, the fiber test results revealed that except for length and grade, the difference between the fiber property averages of the cottons used in the eight different fabrics were small. The range in fiber length averages was from  $\frac{7}{8}$ -inch to  $1\frac{5}{8}$ -inch and the grade averages from Strict Good Ordinary up to Strict Middling. The fineness range was from 4.0 micrograms for the ticking to 4.6 for the duck. Had instruments played a greater part in the purchase of these cottons, the demands for the different quality end-product should have produced a greater range in fineness as well as the other fiber properties. In other words, the lower grades and shorter staples would have demanded coarse and not as strong cottons as the longer and better grades for the combed goods. On the basis of the data supplied in this report, it would appear that without instrument measurements, the mill buyers are purchasing length and grades that differ from fabric to fabric, but they expect other properties to be about the same. As fiber testing equipment becomes more a part of merchandising, mills should buy according to the needs of their product. High fabric or yarn strength will necessitate the purchasing of fine strong cottons rather than depend upon additional staple length to achieve the specification.

A few years ago Messrs. Fiori and Brown at the Southern Regional Research Laboratory, New Orleans, La., prepared cottons with as nearly the same fiber properties as possible with the exception of the variation in fineness. These cottons were processed into yarns and their physical properties evaluated. Without discussing their techniques in making these tests, their results indicated that in spite of the other properties being equal, the finer cotton made the strongest yarn. Another result was that each level of



fineness reacted differently to twist. Fine cottons produce stronger yarns at lower twists.

While fine cottons make stronger yarns, it is also true that there is a greater tendency for fine cottons to produce neps. This is probably the reason that mills avoid the fine cottons in spite of their need for stronger yarns.

Messrs. Bogdan and Feng at the North Carolina State College School of Textiles demonstrated that processing can increase the neps out of proportion to what would be expected for the fiber properties. Cottons that by-passed opening equipment produced less neps than cotton that had been opened. Cottons carded under normal speeds and settings had four times as many neps as cotton carded under their experimental conditions. In other words, neps can be controlled if a mill is willing to determine the best conditions for the desired quality level of the end-product in terms of fiber properties.

Fine cottons should be handled with care. In general, it has been found that if fine fibered cotton, regardless of staple, is handled as if it were long stapled fiber, satisfactory results may be achieved. As little mechanical treatment as possible is essential. Combination air and mechanical cleaning should be avoided. Slower beater speeds are desirable. Cotton should be as open as possible before cleaning.

In brief, the following practices have been found effective in using fine fibered cottons: 1. Blend cotton on the basis of fineness. As Joanna (S. C.) Cotton Mills Co. and other mills have found, it is not prohibitive in cost to run fineness tests on all cotton purchased, warehouse the cotton according to these fineness values, and blend to get the level of fineness desired. This would enable a mill to control fiber properties the year around for maximum processing efficiency. Controlled blends enable the reduction of variation in nep count at the card and in the finished product. Ups and downs in the operation of spinning and card rooms can be eliminated, and spinning production can be held near maximum speed since small reserves need be allowed for performance variations.

2. Mills using exclusively fine fibered cottons should watch the humidity very closely. Fine cottons are more sensitive to high humidity than are coarse cottons. Some

have complained that honey-dew in cotton was causing stickiness and yet tests for honey-dew gave no signs of it being present. The stickiness was apparently due to the fineness of the fiber and the high humidity.

3. Blend from as many bales as possible, introducing new bales to the mix rather than changing to a new mix at the exhaustion of the old. An alternate plan is suggested where moisture conditions are a problem. Split the bales in the middle, placing the halves on each side of the feeder. When the halves are arranged, one should have the outside at the top on one half and the other inside at the top. In this manner the dry cotton from the inside of the bale which has not attained the full regain will be mixed with cotton from the outside.

4. Cotton fiber in the bulk may be subjected to high pressure in the formation of a bale without detriment to its spinning qualities. The modern compress exerts over 500 pounds per square foot pressure. This forces out a large amount of the air surrounding the individual fibers, so that instead of the staple being light and fleecy, it becomes a hard matted mass, which comes apart in large tough flakes, or chips. It is necessary to open these flakes to permit the fiber to take up the air as well as the moisture it has lost, before mechanical cleaning can take place without change to the fiber. Fine cotton is more susceptible to breakage than coarse cotton. Therefore the fiber mass must be reduced to the smallest in order to control the damage. This means low production rates of the opening equipment, and opener of the S.R.R.L. type and cleaning equipment that will not damage the fiber.

5. Beats per inch of the picker should be held down to a total of 100, provided, of course, adequate cleaning has been done in the opening room. Increasing the beats per inch does not necessarily increase the amount of cleaning. In fact, the damage which can be done to fine cotton by overbeating can more than offset the small amount of waste extracted. There are other improvements that can be made on the picking operation that can aid in the handling of fine fibered cottons; such as perforated bonnets for air current control, grid bar angle settings, feed roll settings, etc.

6. It is almost axiomatic that good yarn can be made after good carding. Certainly the carding operation is the foundation of the yarn. This is particularly true for fine cottons. Carding is a precision process since it is the first machine in which the fiber is treated individually. It is essential that the mechanical efficiency of the card assemblies be at its highest for the fine cottons. Fine silky cottons are harder to card and separate than coarse fibers. Long-staple cottons are harder to card than the shorter ones. In general, then, the carding rate must depend upon the quality requirements of the end-product. Cottons of less than one-inch staple and fine fibered can be made into good quality yarn at a rate of nine pounds per hour. One-inch to  $1\frac{1}{8}$ -inch staple can be carded at six pounds per hour, and longer than  $1\frac{1}{8}$ -inch staple from four to six pounds per hour. This is a good starting point for experimental work depending upon the quality level demanded by the mill. Settings, drafts, licker-in and flat speeds should also be adjusted to these levels.

7. Extensive experiments on drawing, roving, and spinning frames have proved that neps are formed in drafting. Two drawings, roving, and spinning based on card-web

nep count may increase the neps as much as 130 per cent. Therefore uniformity of stock in process must dictate the number of drafting processes necessary to reduce the stock to the desired yarn counts. Appearance levels of the yarn will reflect both the uniformity and nep counts as the result of the number of drafting processes.

In conclusion, fine fibered cottons can be used. These cottons will always be with us as long as Mother Nature, with her many ways of stopping fiber development, periodically throws the cotton producer a curve with weather and insect treatment of his product. Cotton fiber will always be skewed to the fine side, even though the cotton breeder continues to develop coarse cotton. Since fine cottons are apt to be penalized with growing use of the micronaire, it would be wise for more mills to learn to utilize this type of cotton. It would appear that before too long an economic advantage can be achieved for this use.

### Large Order For Spindle-Changeover Material

A contract covering high-draft changeover material for more than 260,000 spinning spindles has just been placed with Roberts Co. of Sanford, N. C., by one of the country's larger mill organizations. The changeover covers the largest number of spindles ever granted in one contract to one company, according to the Roberts Co.

Complete modernization of drafting systems in six of the textile firm's mills is involved. A leading branded muslin and percale sheet and pillow case line is one of the end products at these mills. Others are twills and drills, diapers, flannels, carded fancies and piques, napkins and C grade sheetings.

Yarn numbers to be run on the modernized spindles vary from 6s to 40s. Drafts from 25 to 50 are planned. On changeover already installed at one of these mills, 22s warp yarn is being made from .50 hank roving, a draft of 44. Break factor is reported to be the highest and ends down to be lowest existing in this organization. Spinning frames included in the modernization range from 1909 models to 1948 models. All have older types of long-draft system, of both single and double apron styles.

The Roberts high draft one-piece cradle will be employed in conjunction with a U-V pin and top and bottom aprons of similar size. The range of drafts from 25 to 50 is reported as being made possible by the fiber control achieved by this set-up. Practically complete elimination of top roll oiling will be obtained by the use of No-Oil cap bars and saddles, together with hardened steel top rolls specified with mirror-honed finish. Savings from reduced roll picking are expected to be 40 cents per spindle per year.

To give flexibility for future changes, fully-adjustable roll stands are specified for many frames. Lubrication of front roll necks will be reduced to less than one shot of grease per week through grease fittings. Where present roll stands will be retained, arrangements have been provided to drill and tap them for grease fittings without removal from the frame. All hardened gearing is specified for the changeover, with proper increases in draft constant to accommodate the range of drafts planned. Gearing is being standardized among the mills, with future possible machinery moves in mind. Other features specified are double revolving top clearers, standardized weights and weight levers, and standardized cradle and apron widths of the latest narrow styles.



# Warp Preparation & Weaving

## Using Synthetic Slasher Rolls

By WILLIAM L. MORGAN, Sales Engineer, Dayton Rubber Co.

Some 16 years ago Dayton Rubber created a division to specialize in products for textile mills. Its stated aim was to "develop engineered products to meet the progressive needs of an industry that is continually faced with new fibers and processes." Sizing rolls were one project on the company's research budget, as Mr. Morgan explained to the South Carolina Division of the Southern Textile Association.

ONE item that Dayton Rubber Co. early in the years recognized as being outmoded, as well as not meeting the needs in a satisfactory manner—not to mention its high cost of maintenance, was a sizing roll for slashers.

Our first attempt at developing a size squeeze roll of synthetic rubber was in the filament rayon industry. This was readily accepted and after very much research and excellent follow-up by the mills such a roll was developed and has been doing an outstanding job for years. The cotton and spun rayon industry presented an entirely different problem in this development; however, Dayton Rubber was not to be denied the success of such a development, regardless of the problem. In order to afford some savings in cost of maintenance a roll was developed for use in back lines. This has been on operation for a number of years and has proved its worth in savings to the mills. This was not the answer nor the complete job Dayton felt was to be had. Our efforts then turned to the development of a front or finisher roll. Every medium was explored in research as well as actual mill operation. Density (softness of roll) was given every consideration thought possible. Weight of roll was likewise experimented with but this too was not to be the final answer. Weight relation to different densities was explored to every possible means.

Dayton Rubber bought and put in operation an exact

scaled-down model of a slasher. In this research set-up it was discovered that the mill operation with regards to weight and density was just as we found in mill experiments. We then began to devote our efforts to various compounds.

Dayton had found that not merely squeezing the yarn was the answer but a roll that would dress the individual ends in a uniform consistent manner was to be the answer. Progress has been made by suppliers of various material to the extent that Dayton Rubber research is now paying off for the mills in a roll that will give them a warp that is consistent day in and day out as to sizing as well as savings in cost of maintenance and increased production. This roll is not a slick roll but one with a porous surface that acts in a similar manner to wool cloth. This roll is renewable in that it can be buffed at intervals to renew its surface. Microscopic photographs show a rounder yarn and fibers lay in a more consistent pattern to parallel position, thus not being fuzzy as is the case with blankets. Then, too, with a wool blanket or combination fiber blanket, one gets a continual change in pick-up due to the blanket's change from that of a new one to the time it has to be replaced—not to mention lap marks which will change the condition of the warp.

Savings are also found in that with new blankets several yards of warp are wasted due to the blanket not being saturated to the point where it properly dresses the yarn. The Dayton roll begins with the first revolution to size the yarn properly.

Week-end problems are eliminated in that all that is necessary is to rinse the roll off and lay up in fiddle backs to remove weight from the roll. Where applied leverage is used only raise levers and rinse. Bearings are protected on bottom roll due to eliminating of bumps from laps in blankets.

On the front line finisher most of the men find that buffing at six months is sufficient. Some may find it necessary in a shorter time, others not until after a longer interval.

There is another thing about this roll we have been told

## Results of S.T.A. Slashing Questionnaire

† Of mills using wool blankets, 1 reports life of 120 hours, 3 report life of 280 hours, 6 report life of 360 hours, 1 reports life of 489 hours and 1 reports life of 536 hours . . . . users of rubber rolls run 2 to 3 years without replacement . . . . yarn-wound rolls run 6 to 7 months . . . . nylon-wool runs from 550 to 884 hours.

Type slasher roll covering used—

Wool blanket . . . . . 7

Rubber back and wool front . . 4  
Yarn wound . . . . . 3  
Nylon-wool . . . . . 2  
Rubber entirely . . . . . 1

Suggestions to increase life of slasher blankets—

- (1) Use rubber back
- (2) Use rubber back and front
- (3) Nylon and wool gives increased life

- (4) Use burlap on back roll
- (5) Keep roll weight under 500 pounds
- (6) Keep rolls properly leaded with good base cloth next to roll
- (7) Metalize rolls with 1/8-inch layer of bronze
- (8) Break roll covering in properly
- (9) Slasher tenter properly removing lap
- (10) Boil and re-use blankets for 20% in life



by a number of people out of the textile industry, who have no part in the roll but merely furnish the sizing compounds. In talking with them we asked them why they are so interested, and they tell us the same thing that the mill men tell us—that the variation in tests is down to a minimum.

You get a minimum variation between the samples, and if you do get variation you have something on which to hang your hat and start looking for the trouble.

At the present time we still have three rolls available but find it is really getting down to two, because the mills that are running this new roll in the front, if they are replacing in the back line, are using this roll in the back and find it is doing just as good a job as the old slick roll.

## The Most Common Causes Of Shuttle Wear

By J. M. TUTEN, Engineer, Draper Corp.

**The ultimate in looms would never need repair parts or new supplies. Such is not the case, however, and shuttles do wear. Mr. Tuten, addressing the Southern Textile Association's South Carolina Division, offers some hints as to how this wear might be reduced.**

**I**N thinking about shuttle life we should first take into consideration the fact that shuttles operate under a multitude of conditions, each constantly changing during the life of the shuttle. These changes, be they ever so slight, have their effect on shuttle life. This type of wear is considered normal and is therefore unavoidable, being synonymous with the fly shuttle type of loom. I refer particularly to that period when the shuttle, the binder, the picker, the check strap, the box plate, the leathers, etc., pass from a new condition to a worn condition, sufficient to require replacement.

Having considered the normal type of shuttle wear, let us pass on to the more common causes and perhaps the most serious causes of wear. This can be divided into two parts—namely, wear that occurs internally in the shuttle and wear

that occurs externally. The internal wear is caused by allowing the hardware in the shuttle to become loose. This will happen, usually, when there is no system for periodically checking shuttle screws. A shuttle spring or eye that is allowed to run loose, for even a short period of time, will usually render the shuttle unfit for further satisfactory service. The obvious answer to this problem is to establish a system whereby each shuttle is checked for this condition at specific intervals.

External wear, which is by far the most serious, is generally caused by a crooked shuttle flight. It is also caused by the shuttle meeting some object in its flight. This can be the result of a number of things, such as improperly positioned front box plate, back box plate being out of line with the reed, reed not square or bowed, a sharp reed (usually, if you take your thumb nail and rub across the reed, if it leaves any mark at all you can be sure that that is a sharp reed and will soon wear the shuttle unnecessarily), lay warped, off-set shuttles or pickers, also shuttle wider than lay section, picker improperly set, etc. All these things relate to shuttle life. Too much power on the loom is a very frequent cause.

Fortunately, all of these conditions can be corrected with

## — Results of S.T.A. Weaving Questionnaire —

¶ Mills answering the questionnaire report the following shuttle life in loom hours on various types of looms: E looms at 160 to 163 picks per minute, 1,821 and 2,000 hours . . . . E looms at 172 p.p.m., 1,500, 1,684, 1,872, 4,000 and 5,000 hours . . . . X looms at 148 p.p.m., 2,180 hours . . . . X looms at 170 p.p.m., 5,000 hours . . . . X looms at 182 p.p.m., 1,500 hours . . . . X-2 looms at 172 to 176 p.p.m., 1,440, 1,925 and 1,800 hours . . . . X-2 looms at 180 p.p.m., 3,536 hours . . . . XD looms at 160 p.p.m., 1,628, 2,500 and 2,924 hours . . . . K looms at 176 p.p.m., 2,640 hours . . . . L looms at 125 p.p.m., 2,000 hours . . . . XP looms at 144 p.p.m., 1,446 hours . . . . XP looms at 154 p.p.m., 2,614 hours . . . . XM looms at 182 p.p.m., 2,099 hours . . . . EM looms at 172 p.p.m., 2,015 hours . . . . XL looms at 106 to 122 p.p.m., 1,712 hours.

### Check points on shuttle life—

- (1) Proper loom alignment
- (2) Good harness settings
- (3) Well-polished reeds
- (4) Frequent inspection
- (5) Minimum of power
- (6) Parallel picker
- (7) Check shuttle guards
- (8) Check that quills ring up properly in shuttle
- (9) See that transferer is set properly
- (10) Shellac and tallow shuttle systematically
- (11) Do not allow shuttle to become washboarded
- (12) Run good pickers
- (13) Keep hardware on shuttle tight
- (14) Try felt on box front and binder

### Type check straps used—

- Curved . . . . . 8  
Straight . . . . . 3

- Curved and Straight . . . . . 2  
Endless . . . . . 2  
Curved with helper . . . . . 2

### What is life expectancy of check straps—

- 1 mill reports 900 to 1,200 hours  
1 mill reports 1,500 hours  
1 mill reports 1,821 hours  
1 mill reports 2,111 hours  
1 mill reports 2,280 to 2,760 hours  
1 mill reports 2,640 hours  
1 mill reports 4 months  
5 mills report 6 months  
1 mill reports 6 to 8 months

### Check-list for increasing life of straps—

- (1) Proper installation
- (2) Keep stroke of picker set to sweep recommended for size strap used
- (3) Check boxing of shuttles
- (4) Use endless
- (5) Do not choke straps
- (6) Use correct length strap
- (7) Try felt on box front and binder



*The Weaver's Friend*



# VICTOR Mill Starch

Always Uniform...and Backed

by Kever Service

TEXTILE SALES DIVISION  
1200 S. C. NATIONAL BANK BLDG.  
GREENVILLE, SOUTH CAROLINA

Charles C. Switzer, Vice President

THE KEEVER STARCH CO. ★ GENERAL OFFICES ★ COLUMBUS 15, OHIO  
Corn, wheat and other grain products for industry since 1898

3-3

## WARP PREPARATION & WEAVING

a little effort should they be present; and Draper provides for its customers free setting instructions designed to help mill people better understand the importance of correct shuttle-box settings, along with the correct reed setting in relation to the back box plates. Following these instructions and understanding them is the key to longer shuttle life.

It must be remembered that the shuttle box is the only thing that can influence the shuttle and its relation to the reed during a flight, and any misalignment that is imparted to the shuttle while it is leaving the shuttle box is greatly magnified by the time the shuttle reaches the opposite box.

All box plates should always be leather-covered, to protect the shuttle; and back box plates should never be set in any way except exactly in line with each other. Aligning with the long straight edge is important. It is all right to align with the short straight edge, but in order to do real resetting you should use the line from one box to the other.

Excessive heel spring should never be used, but just enough to prevent excessive parallel shoe kick-back. If excess is used the check strap must be adjusted tighter than necessary, consequently shortening its life.

The loom must have sufficient power at all times to guarantee the arrival of the shuttle ahead of the shuttle feeler prior to a transfer. Otherwise marking of the shuttle will be had. You have seen it many times, I know; and when the shuttle enters the left-hand box it is the damaged portion of the shuttle that meets the box first, and rapid chewing-up of that shuttle can result.

Since the shuttle rises when boxing, it is a good practice to set the Stafford cutter high in the thread-cutter hole, rather than low, for a low setting will often chip or mark the bottom of the thread-cutter hole. This interference will often cause the knife to miss the filling and may result in a jerk-in.

Lays should be checked periodically with the lay gauge, the lay height gauge. You should never guess at this. Un-

fortunately, we have manufactured many looms which have never seen a gauge; the fellow just sets it by his eye. But most of you in the modern mill are familiar with the necessity of using gauges. Of course, if lays are found out of gauge when checked they should be corrected.

Shuttle boxes and lays should be examined periodically for sharp places, loose screws, etc., where the shuttle travels. The lay should be checked for levelness with the long straight edge. A high lay is a serious thing so far as shuttle life is concerned. For instance, you might sometimes get a sword that was not made in the lathe in which the original sword was made, and it will cause a twist. Things of that sort are very important.

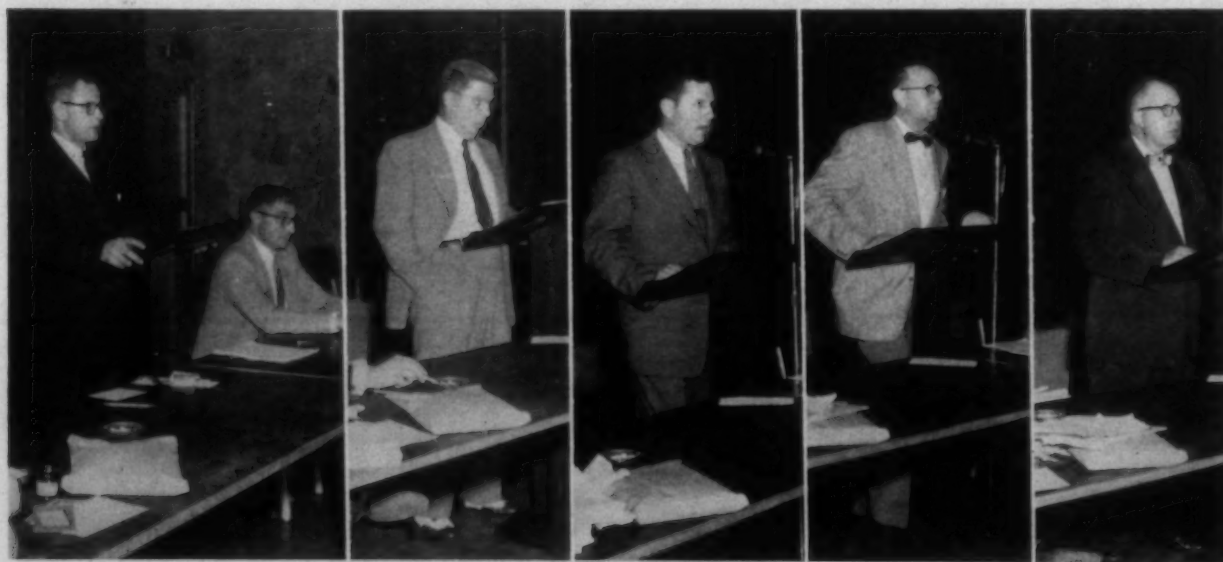
I wish to mention one other important setting that can also affect shuttle life—keep the bottom warp shed no greater than one-eighth inch away from the raceplate to back center at all times, for a high bottom warp shed can reduce shuttle life considerably.

There are other practices I have seen that should not be used. I do not think too many mill men would condone them, but I will mention one or two for what it is worth. I recently saw a fixer pick up a brand-new shuttle and take out his knife and scrape off all the protective coating that we had so carefully put on there. In doing so he took eight to ten days off the life of that shuttle. All of our shuttles, as you know, are dipped in a very hard laquer. It is particularly durable but will wear off soon enough.

There was another thing I saw this man do. He was taking out a completely worn shuttle. The shoulders were worn and splintered. He did straighten out the box plate, but that was the only thing he did toward reconditioning that. Naturally, it will be only a short time before that new shuttle is in the condition of the other one.

Patent No. 2,635,829 has been granted to Robert L. Carroll, Greenville, S. C., for a yarn cake holder for winders.

Patent No. 2,652,203 has been granted to Threads Inc., Gastonia, N. C., upon application of Richard R. Cone for a raking device for quilling machines.



Prioleau, Pittendreigh, Reed, Littlejohn, Morgan, Tuten

Speakers during the April 15 meeting of the South Carolina Division of the Southern Textile Association, pictured here with Chairman W. M. Pittendreigh, superintendent of the Riegel Textile Corp. gray mill at Ware Shoals and host to the meeting, were: William F. Prioleau Jr., legal assistant to the Governor of South Carolina; John M. Reed of Ashworth Bros. Inc.; A. C. Littlejohn of Armstrong Cork Co.; William L. Morgan of Dayton Rubber Co.; and J. M. Tuten of Draper Corp.



# Bulk Starch Handling At Greenwood's Durst Plant

By A. EDWARD FILIPPON, Sales Service Engineer, Corn Products Sales Co.



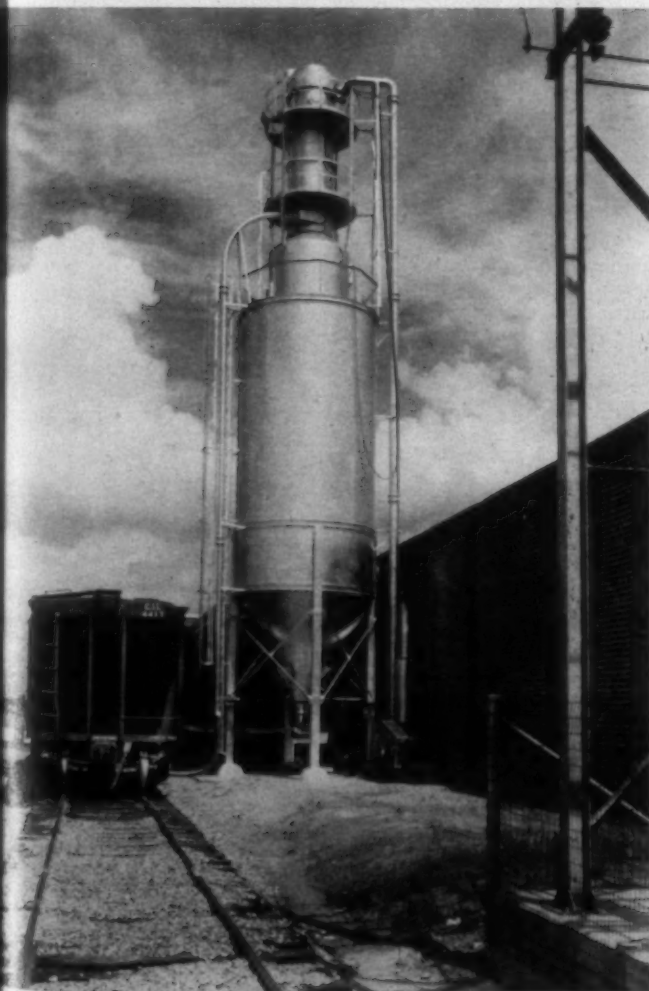
Starch is drawn by vacuum through flexible metal hose from hopper car to filter on top of storage bin.

**N**O phase of plant operation has changed more radically in recent times than materials handling. New equipment and new techniques make possible a completely new concept of efficiency in this field, with consequent savings in base costs of materials, as well as real savings in labor.

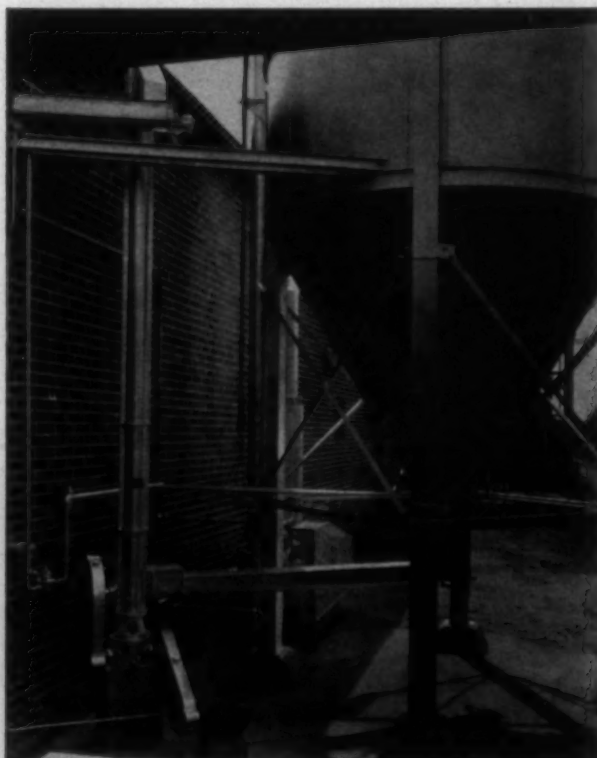
The new Durst Plant, latest addition to the Greenwood (S. C.) Mills, is designed and equipped to take full advantage of recent progress. The plant's new pneumatic starch handling system unloads, stores, delivers, and weighs the starch used in its slashing process in three streamlined automatic operations, as against nine by the conventional bag system. A specially designed storage bin, outside the plant proper, saves valuable floor space that would otherwise be tied up while the starch waits to be used.

Starch is delivered to the Greenwood Mills plant in hopper-type railroad cars that hold 60,000 to 80,000 pounds each. These cars are rented from the railroad and serviced by the starch manufacturer in order to insure quality delivered. All car openings are protected. The inside surfaces are coated to prevent corrosion and provide a hard surface that will be as nearly self-cleaning as possible. Normally, a car is always used for the same product, i.e., a starch car is used only for starch, a sugar car only for sugar, etc. If a change is necessary, the manufacturer goes over the entire car as if it were a new unit going into service.

Hopper cars have two large compartments with two openings (unloading hatches) each, and carry from 50,000



Filter on top of storage bin automatically controls flow of starch into bin.



Conveyors in bottom of storage bin move starch to daily bin in plant as needed.

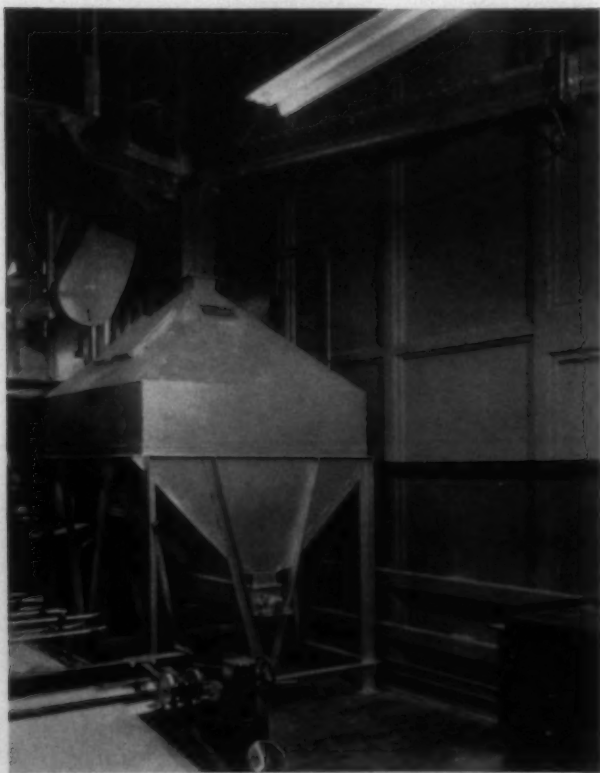
## WARP PREPARATION & WEAVING

to 80,000 pounds of material. When the car arrives on the railroad siding, the operator attaches a small metal adapter to each outlet by means of clamps. He then props up one of the top inlets, to allow air to enter the compartment, and he is ready to start unloading.

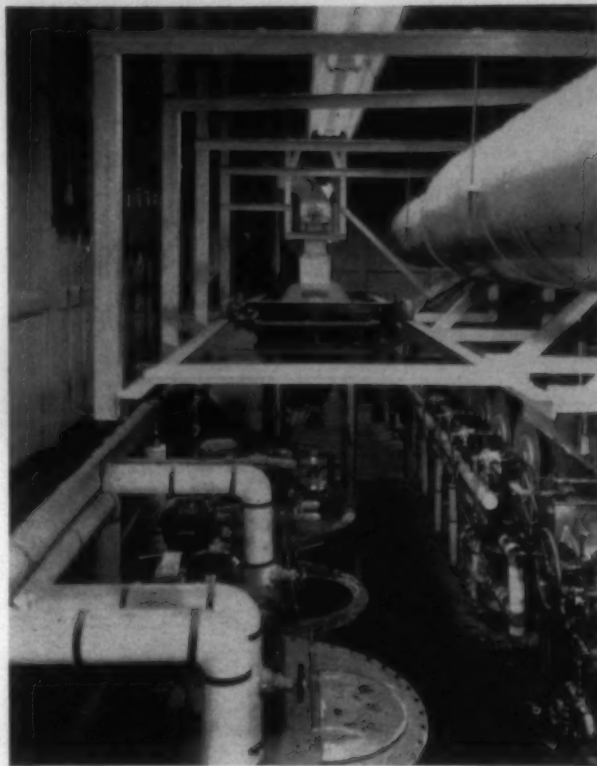
With a pneumatic system such as the one installed at the Durst Plant one operator can unload the hopper car with little interference to his regular work. All he has to do is connect the flexible metal hose to each of the four outlets. All the rest of the work is done by the pneumatic system. The starch is drawn by vacuum into the storage bin at the rate of 20,000 pounds an hour. Compared with the labor necessary to unload a box car of bag starch manually, this represents the first important saving.

The storage bin at the Durst Plant is located outside between the plant and the railroad siding. It holds approximately 160,000 pounds. Horizontal and vertical conveyors deliver starch from the storage bin to a daily bin in the plant as required. From the daily bin, the starch goes to a scale-hopper equipped with an automatic cut-off that stops the feeders when the desired weight has been delivered. Compared with the labor necessary to move bag starch from storage, unload at point of use, cut bags, dump starch into process, bundle and store the bags, this streamlined operation represents a second important saving.

In addition to the labor-saving features, the Durst Plant plan also offers the definite price advantage of buying starch in bulk. The design for this system was developed through co-operative study and planning by the technical staffs of the starch manufacturer and Continental Gin Co., of Birmingham, Ala. who furnished the equipment, working with mill officials. Personnel of Greenwood Mills connected with this installation included James C. Self Jr., treasurer; J. F.



Daily storage bin in slasher room of Greenwood Mills' Durst Plant.



Conveyors from daily bin feed starch into automatic scale-hopper on overhead rails, supplying several starch-mixing kettles.

Chalmers, general superintendent; W. L. Bross, chief engineer; and F. T. Hurt, Durst Plant superintendent. The equipment was installed by Greenwood Mills personnel.

### OLD STARCH BAG SYSTEM—OPERATIONS

1. Bagged starch unloaded from railroad car or truck at receiving platform.
2. Bags manually loaded on hand trucks, elevators or conveyors.
3. Bags trucked to storage room. Elevator and passageway tied up.
4. Bags unloaded and stacked in store rooms.
5. Valuable floor space occupied while starch waits to be used.
6. Stock pile torn down, reloaded on hand trucks, elevators or conveyors.
7. Starch moved to processing station.
8. Bags unloaded, cut, and starch dumped into process.
9. Empty starch bags bundled and stored.

### MODERN BULK STARCH HANDLING SYSTEM—OPERATIONS

1. Starch pumped mechanically from dust-tight hopper type railroad car to storage bin.
2. Starch stored until needed in bins, otherwise unused space.
3. Starch goes into process accurately weighed in automatic starch-weighing hopper.

# Maintenance, Engineering & Handling

## Joanna's System Of 'Personalized' Fixing

By J. L. DELANY, General Superintendent, Joanna (S. C.) Cotton Mills Co



Joe Delany is known as a mill man who "will try anything." One item of success is an organized system of what he calls "personalized fixing" in which each fixer is encouraged to feel a sense of responsibility for the machines under his care. He told about the program during the April 24 meeting of the Northern North Carolina-Virginia Division, Southern Textile Association, at Greensboro, N. C. Cone Mills Corp. was host to the meeting.

THE maintenance schedule in our opening room is divided into three parts; each shift take one third of the load. Machines are split equally amongst the fixers, and each fixer has the definite responsibility of maintaining certain machines. Of course any breakdown will be repaired on the shift the occurrence takes place. In general the fixer will look after settings on spike rolls, tightening up aprons, cleaning belts and applying belt dressing, and lubricating the machines in accordance with the machinery manufacturers' schedules. Lubrication schedules of each machine are posted in the room, and each fixer has a booklet printed by the manufacturer giving full details of the individual machine. This not only familiarizes him with the working details of the machine but gives him the maker's suggestions for proper upkeep. We do not have very many machines in our opening line, and due to having three shifts it is possible to check each once per week. Each of our opening lines is equipped with the Centennial opener. Once each week we shut down, and after due safety precautions are observed a man equipped with a flashlight will get into the hopper. A second man will then manually turn the main drive very slowly. This will then give the man inside the hopper a chance to check the condition of the gin saws and also pick their teeth. Particles of wood and other foreign matter quite often become imbedded in the sharp saw teeth and if not removed will eventually impair the machine's opening efficiency.

We find a good many bearings in our opening line are of the type not equipped with grease fittings. They must be taken apart and repacked, but since we do this only two to three times annually we feel that it entails no great extra work. We also feel that it prevents over-lubrication, which tends to break down grease seals and allow grease to

run out and mess up the machine—wasting time and material and making an eyesore.

### Picker Room

We overhaul each of our ten pickers every three months. Each picker is completely dismantled and all bearings and journals are gone over for possible wear and, after being cleaned with a water-type cleaning solution, are lubricated and reset. Leathers on condenser screens are replaced; three months is their life. Beaters and fans are taken out and balanced to insure longer life or riveted where necessary. Any dents found are carefully removed. In short, we try to do the very best job possible.

Our overseer has worked out a check-sheet of day-to-day checking of the pickers, and we all feel that this has proven successful. Briefly, the machines are divided by three and each fixer given an equal amount of work. The check list is as follows (one picker per man per shift):

Evener belt, shipper fingers, grease shipper bearings, clean and grease control bearings in blending reserve, clean and grease evener roll bearings, check and adjust calender roll weights, adjust calender racks, clean and check evener linkage, check safety knock-offs, polish calender cheeks.

The above is done weekly for each picker. In addition the fixer will also check (every shift) ten laps for weight, clean all belts, check belts. An appropriate space is made opposite each item with room for the name of the fixer at the bottom of the card. The fixer will check off each item as he completes it. Daily the card is picked up by the assistant overseer, who inspects the work done by the fixer. The card is then turned over to the overseer, who places it in his file. He will make spot checks at frequent intervals to insure all being on the ball.

We have found that direct allocation of the responsibility of an individual machine is the best assurance of its proper maintenance.

We go so far as to stencil the name of the fixer on the picker front in order to develop personal interest. This works well, as no fixer will want "his" machine to be second to anyone else's. We have always tried to build a feeling of "love and affection" on the part of the maintenance crew and by "personalizing" the picker we seem to have come close to this goal.

Joanna is run from the picker room insofar as quality control, yarn variation, and uniformity of product are concerned. No pains are spared to make the best lap within our power. Each week we check two consecutive laps from each picker. One is checked on the Saco-Lowell lap tester and the second on the I.T.T. electronic lap tester. At first



## MAINTENANCE, ENGINEERING

### & HANDLING

we were content to find our yard-to-yard weights were holding within plus or minus four-fifths ounce. These figures showed a nice high percentage figure of which we were quite proud. It was pointed out to us that while this looked good it was not just what we wanted. What we did want was every lap to average within the same tolerance. In other words, if we drew a center line down the middle of our lap standard weight per yard and set up tolerances of four-fifths ounce on either side, then every one of our ten pickers would have to fall within those limits to be correct. This is our goal; we have not hit it yet, but we know what we want and have greatly improved over what we were doing. All of our picker maintenance is directed toward keeping our yard-to-yard variation as low as possible.

### Cards

Our fillet cards are ground every 240 hours. They are all equipped with the continuous stripper and our set-up is to have each grinder grind four cards per eight hours. The cards are given a light grinding and a close setting. This results in a short life for the fillet, some of which have actually been worn almost to the knee in slightly less than six years. We also have found that some of this short life is caused by not grinding the bare surface of the doffer and the cylinder at the time the clothing is put on. One card, which the grinder claimed had given him considerable trouble in trying to get uniformly across the width, took four days of bare surface grinding before we had ground out all the hills and valleys left there by the manufacturer. We feel that the life of the clothing will be greatly extended if it is set on a uniform surface. Later, after this particular card had been re-clothed, the grinder said he never had it so good. That is was easy to set, made a good web, with low neps, waste easy to control, and took very little grinding to keep in working order, were further claims made by the grinder.

We have recently completed overhauling our feed rolls in our own shop. The roll with bushings was sent to the shop, where it was built up with our welding machine (we now have a metallizing unit and hereafter will use

Check	Picker, No.					
Date						
Evener Belt						
Shipper Fingers						
Grease Shipper Bearings						
Clean & Grease Control Bearings						
Clean & Grease Evener Roll Bearings						
Check & Adjust Calender Weights						
Adjust Calender Racks						
Clean & Check Evener Linkage						
Check Safety Knock-offs						
Polish Calender Cheeks						
Daily Checks						
10 Laps For Weight						
Clean Belts						
Dress Belts						
Check Belts						
Name						

it in place of the welding torch). The journal was then turned to size. The bushings were reamed out and oilless sleeves inserted. The method here was to make the oilless sleeve in two parts of such length that when pressed into the steel bushing there would be a one-quarter inch gap between the two,

right under the oil hole. This acted as an oil reservoir and we have lost not one during the two or more years since the work was done. This was also done on coiler-head calender-roll bearings.

We have begun the change-over to metallic card clothing and have found that there is one thing we must do on

Shift	Date	Check Sheet—Lap Winders			
		Mach. No.	Mach. No.	Mach. No.	Mach. No.
Items to Check					
Clean and Check cal. rolls on feed table					Weekly
Check tension on drive chains					Weekly
Check lubrication of chains					Weekly
Check and bleed pneumatic cylinders					Daily
Check for worn gearing					Weekly
Check spool clamping device					Weekly
Check for loose gears and worn keys					Weekly
Check to see that all grease fittings are in place					Weekly
Fill oil bowl on let-off					Weekly
Check electric stop-motion operation					
Signed:					

practically every card we re-clothe. This is to take out the doffer shaft along with the bearings and re-work the surfaces of each. We usually find the cast iron shaft very badly worn as well as the cast iron bearings in which it runs. We think this is due to the fact that for years it has been customary to run the doffer while grinding, at about a speed of 275 r.p.m. Cast iron to cast iron simply will not stand this speed and as a usual rule few people look for any wear on a doffer that ordinarily runs at an average speed of ten r.p.m. One of the first sets of metallic card clothing we put on was seriously damaged by not checking this point. Now we have a standard practice of using a micrometer to measure the wear on the journal and bearing. These units are expensive, the journal because of its weight and size; the bearings because the upper half is also the cheek enclosing the top half of the doffer. Together they represent a total new cost of almost \$150,000. Thanks to our skilled shop men, we rework all three units at a cost of about one-tenth of this.

It is a major job to install metallic card clothing on a cotton card, and we have developed a team of two men who take five days per card. There is a great deal of grinding on the base wire before the surface wire can be wound on. Due to this, the mechanics are usually busy on two other cards getting them ready or finishing them up. It's almost like the old-fashioned W.P.A.—one coming, one working, and one going. There is very little maintenance on the metallic wire card. Should trouble be encountered and a section be flattened out, it cannot be raised as you would do with a regular fillet wire. It must be cut out and a new section put on in a very neat way devised by the manufacturers. It is still quite a job but not beyond the means of a well-trained card grinder. There is some grinding of metallic wire but only enough to level off the wire for extremely close, accurate settings. On a fillet card one has to acquire a sort of feel for the proper settings. On the metallic job it is practically "go or no go."

### Drawing

Our drawing frames are completely overhauled once a year. Rolls are cleaned every two weeks, but bottom steel rolls are taken out only at the annual overhaul. Our assistant overseers check the web of every drawing delivery at least once a shift. At one time the type of roll then in use was fearfully hard on top roll cots, and we had to rebuff almost twice per month. New steel rolls have been installed, and so far we have had extremely little replacement; usually from a choke-up and not from wear. We have the lap-back type drawing and we have worked out a fixer check sheet for the sliver lapper but not for the five-roll drawing. Since we have nine lappers it is quite easy to split these into three for each fixer, who checks them according to the check sheet. Each fixer checks and bleeds the pneumatic cylinders on each of his three units. Then weekly he will check once on each lapper as follows:—Feed table calender rolls, tension on drive chains, lubrication of drive chains, check for worn gearing, check spool-clamping device, check for loose gears and worn keys, make certain all grease fitting are in place, fill oil bowl on let-off, check electric stop-motion operation. Each man is here again responsible for individual machines and really goes all out to be certain that "his" machine is in extra good working order. All of our lappers are equipped with the new-type pneumatic back release, and I am glad to say

this functions practically painlessly and all of our operatives heartily approve it.

Daily our standards department checks 20 deliveries of drawing, and in case any one is found out of line it is immediately called to the overseer's attention and given fast action towards improvement. We weigh the same 20 deliveries for size and plot on a graph the average grains per yard of each four delivery heads. When a head is spotted running continuously heavy or light we change one tooth on the crown gear in order to pull it closer to standard. This has helped greatly in reducing our co-efficient of variation.

### Roving

All frames have rolls pulled, gear shafts and bearings cleaned, and the frames lined and leveled once a year. The rest of the overhauling is done by section men as preventive maintenance. Top rolls are buffed annually. One overhauler and two helpers do all card room overhauling from pickers through roving. Major overhauling is done during the Summer, when plenty of energetic young people are on hand during school vacation.

It is not my purpose to bore you with a detailed description of how we go over each particular part of the frame; we do this just about the way you do. In addition we go over each one of our flyers and check for balance, gauge of slot, roughness of nose, hollow arm and over-all polish. Pressures are checked for over-all condition, repaired if but slightly worn, and discarded if found excessively worn. There are no tricks in keeping a frame in good order, just plenty of plain solid work day to day, fortified by good overhaul annually.

Our quality control crowd keeps a sharp eye on the roving and our set-up tries to point out the frames which have the most deviation from standard. It is really surprising how little size variation exists in any one frame, but how much variation occurs over the entire job. This is what the QC boys are after and it is amazing how much good they accomplish.

Our shop has set up methods of rebuilding the bearing



Stafford, Delany, Barton, Carpenter

Pictured with the principal speaker, J. L. Delany, at the Spring meeting of the Northern North Carolina-Virginia Division, Southern Textile Association, were T. I. Stafford, production manager for Clifton (S. C.) Mfg. Co. and 1953-54 president of the S.T.A.; Howard Barton, housekeeping manager for Fieldcrest Mills at Leaksville-Draper-Spray, N. C., the divisional secretary; and Miles A. Carpenter, assistant superintendent for Erwin Mills Inc. at Cooleemee, N. C., the divisional chairman.



surfaces of the cone shafts by metallizing. This is a terrific timesaver. Our old method was to pull the cone from the shaft and weld extra metal on it—taking extreme pains to insure we didn't cause heat distortion from the weld—which of course meant extra work in straightening. Then the shaft could be turned and pressed back into the cone. This took about four hours. Now we spray-bond the shaft with the cone still on. Not enough heat is applied to distort anything, and it is then ready for the lathe. The entire job takes no more than 45 minutes, and is one the shop takes pride in doing instead of dreading.

## Spinning

Spinning frames are lined and leveled and spindles plumbed once a year. Rolls are scoured once a year on the Roth System and twice a year on the Shaw System. Our average apron life is three years on leather aprons. Travelers are changed every 120 hours on warp and 480 hours on filling. Warp rings last about four years, and filling rings last three or four times as long as the warp. We use only one side. At present we are having the second side repolished on a trial basis, using a newly-devised system. This looks very good for a new idea and we hope for the best. We use three full-time overhaulers to do lining, leveling, and spindle-plumbing and provide extra help for roll scouring.

There are several good-sized tasks the shop has done

<b>Spinning, Frame No.</b>					
<b>Check</b>	<b>Date</b>				
Builder					
Pittman Roll					
Lifting Rods					
Travis Chain					
Level Rails					
Cylinder Bearings					
Nibs					
Saddles					
Levers					
V-Belts					
Safety Latch					
Roving Traverse					
Steel Rolls					
Guide Wires					
Apron at Gear Cap					
Oiler to Check Oil Tubes					

and is doing for the spinner. One of these is to re-neck steel rolls, using a special high tensile steel. Formerly we used what we would consider a fairly good steel, which did not last very long. Now we have found that a more expensive steel does the job the first time and we are through with it. At present we are working over all of our scavenger roll hangers. These are the small cast iron supports for the scavenger roll. They had been causing quite a great difficulty in being so badly worn on the pin which held them to the side of the roll stand that when the scavenger roll had a lap on the end next to the stand it soon quit turning. This caused the drafted stock to spill out onto the adjoining end, to lap around to the top or bottom roll, to make a bung-up, to cause extra ends to come down for the spinner, to put more slubs and gouts into the work, which would mean trouble all the way to the cloth room. Now we weld in new metal in the bearing hole, fill the groove that holds the scavenger roll pin, and cool this at once in a box of flaked asbestos. This cooling is important. After cooling it is dressed on a grinder, drilled in a special home-made jig, then slotted in another home-made jig which holds it in the correct position. These two jigs have been a lot of help. The work is done in the spare time of a shop man and costs comparatively little. We had quite a number to do but have almost got around at present. New parts were possible but the cost was excessive compared to re-working. We could find no one who did this work, so we did it ourselves and saved a great deal of dough.

Our lay-motion worm-gear shafts on the warp spinning frames are at present being rebuilt by our shop to take out excess play. We bore out the stand and make the shaft over-size to fit one a day.

## Spooling and Warping

We use an outside service in this department twice a year to check over all our machines. One man on the first shift is assigned upkeep of knotter heads, the other two fixers split responsibility for various other sub-assembly units. We are working out a check list for this department but it is not ready yet. The manufacturer's repair parts are as expensive as a part for a fine watch, but due to the nature of the machine we feel it is less expensive to continue their use rather than to engage in large-scale rebuilding using self-repaired parts. Needless to say, we get the full dollar value out of each part before discarding. What we can adequately repair we do repair. We use a price list from the manufacturer to figure the cost of every part ordered.

### Slasher Room

Our check system will be applied here but is not installed at this time. We do use fixed responsibility for each machine. The manufacturer's schedule of lubrication is followed closely, and we have no great troubles here. We are equipped with five Uxbridge slashers, and when these were installed adequate bearing control was also made mandatory. Our shop men designed and built a beautiful loom-beam drive using ball-bearing-mounted universal lathe chucks, which securely grasp and center the beam and run true up to winding speeds of more than 100 yards per minute.



## Weave Room

Here again we have a check-list system for thoroughly checking our looms. This list includes pickers and binders, box fronts and backs, low lugs, shuttle, let-off and take-up, brakes and loom speed, thread cutter, filling knife, parallel blocks, Pittman arms, rocker shaft and swords, lay guides and lay leather, picker sticks, temple leather bumpers, filling fork and grates, picker stick bumpers, leather under whip roll, leather under harness roll, harness cams set 2½ inches, whip roll setting, protector rod bearing. Each of the above on one loom per shift is checked by the loom fixer, using the list and checking each off in turn. The list is then picked up by the assistant overseer, who checks over the fixer's work. Each man signs the card, which is then filed with the overseer, who of course will make spot checks.

As is customary in all shops, a great deal of work is done for the weave room. In general we repair any part which can be repaired for less than the new cost. Some time ago, when our supply cost got too high, we held a series of weekly conferences on what we could do in repairing parts and saving money. This turned out to be quite an interesting device. We found our loom fixers taking parts to the shop and getting cost estimates of what different shop mechanics would charge them to make the repair. They would first find out the cost of the new part from the supply department, then take the part to the shop for repair. The interest taken in this was intense, and one would think they were actually spending their own money. We

were delighted and went along fully with them in their cost reduction. We found later that there was a tendency on the part of some fixers to hang around the shop while their parts were repaired. This caused the fixer to be off his job too long, slowed down the repair, caused excessive loom down-time, and messed up the shop. We considered several methods to use in overcoming this and finally came up with giving the loom fixer an order on the supply department for the part, turning in the broken part to the supply man. The fixer could then get his part on the loom and the loom running with no difficulty. The broken part would be kept in a box provided for that weave room's individual use. When enough work accumulated to warrant turning over to the repair man, it would be taken to the shop, repaired and put in another receptacle for the weave room from whence it came. The cost of repairing would be charged back to that department. In this way it could be sent back to its own department and re-issued without prejudice.

We rebuild loom beam journals by cutting off the stud close to the barrel, first taking off the heads. The shaft protruding from the barrel is then bored out and a stud of proper size pressed in. This extension is then machined to exact size, the barrel is smoothed, and the heads put back on; and it is done.

When a journal having a wheel, gear or pulley is worn not more than 8/1000 of an inch we quite often get out the "put-on tool" (knurl), knurl the shaft, and press on the gear or pulley. In the last four years our master mechanic says not one has come back for being loose. He also uses the knurl for pressing on gears on cold-rolled cam shafts. This is much cheaper than the usual cam-shaft steel and lasts as long.

Red-head gears are a problem. We tighten up on our inspection of motor pinions and armatures to cut down their being worn out. When replacement becomes necessary we find the blank costs \$6 and the work about \$3. The manufacturer can sell it to you for \$8 (this due to his new foundry set-up) so it is better to buy them.

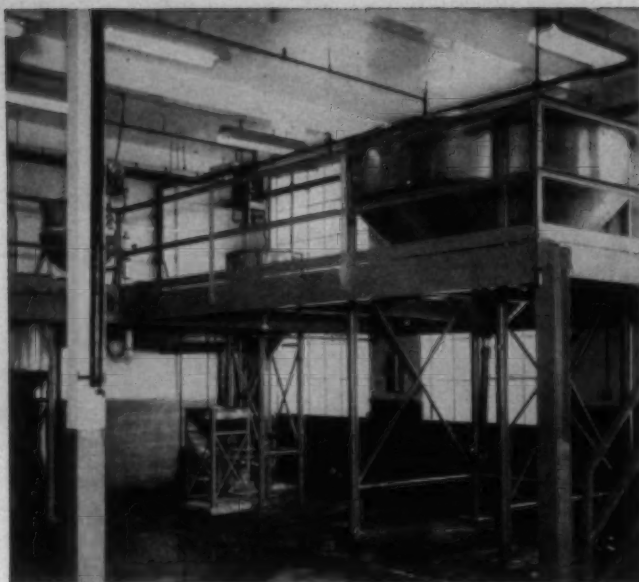
In closing, I leave with you the thought that when you can repair something for less than the manufacturer can supply it, it will pay you to do it; otherwise not.

The Textile Education Foundation, Atlanta, Ga., has announced the awarding of five textile engineering scholarships to the A. French Textile School at the Georgia Institute of Technology. The winners are: William Jerry Garrett, Columbus, Ga.; Joseph Clyde Penick, Cornelia, Ga.; Augustus C. Rogers Jr., Thomaston, Ga.; Jimmy Reginal Sailors, Jefferson, Ga.; and Billy Joel Taylor, Route 1, Jefferson, Ga. The winners were announced by Dr. Phil B. Narmore, Georgia Tech's executive dean and chairman of the Georgia Tech Student Loan and Scholarship Committee. The awards are limited to students enrolling in one of several textile engineering options under the co-op plant at Georgia Tech. Each award amounts to \$300 per quarter, while the student is in school, or a total of \$2,400 for each student, provided he meets the scholastic and personal conduct requirements. The Foundation is a non-profit corporation created by the members of the Cotton Manufacturers Association of Georgia for the purpose of assisting the A. French Textile School in providing more adequately for the ever-growing demands of the textile industry for technically trained manpower.

### Loom Check List

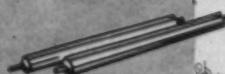
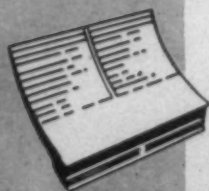
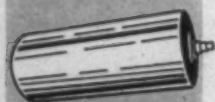
Loom Number \_\_\_\_\_ Date \_\_\_\_\_

	OK	NOT OK
Pickers & Binders		
Box Fronts & Backs		
Low Lugs		
Shuttle		
Let-Off & Take-Up		
Brakes & Loom Speed		
Thread Cutter		
Filling Knife		
Parallel Blocks		
Pittman Arms		
Rocker Shaft & Swords		
Lay Guides & Lay Leather		
Picker Sticks		
Temple Leather Bumpers		
Filling Fork & Grates		
Picker Stick Bumpers		
Leather Under Whip Roll		
Leather Under Harness Roll		
Harness Cams set 2½"		
Whip Roll Setting		
Protector Rod Bearings		
Checker: _____		
Fixer: _____		



*for economy it's* **STAINLESS STEEL**

Down go maintenance and operational costs when you switch to stainless steel! Corrosion, wear and break-down resulting from them are eliminated by the use of this modern wonder metal . . . Consider replacing your old-fashioned hard to clean and maintain pressure vessels, acid tanks, dye vats or starch kettles with SIMS built stainless steel equipment.



**FABRICATORS  
SINCE  
1928**

*for Quality it's*  
**SIMS**

With one of the most modern and progressive metal working shops in the south, the technical "know-how" of SIMS craftsmen and the SIMS guarantee of quality products, you are assured of equipment built to your *exact* specifications.



For Custom  
Tailoring of  
Stainless Steel . . .  
Call, wire or  
write today.

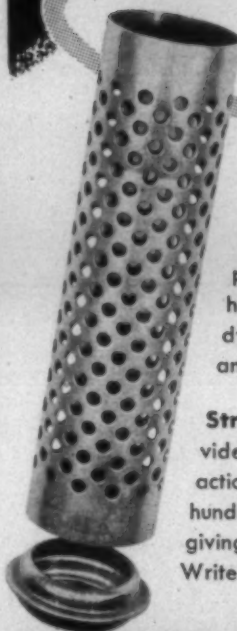
**Sims**  
**METAL WORKS**  
**WEST POINT, GA.**

## Stainless Steel Dye Tubes

**. . . for your package  
dyeing machines**

**Precision Built:** These tubes are perfectly sized for roundness, and holes are evenly spaced for uniform dye penetration. Ends are 100% level and rounded to prevent snagging.

**Strength:** Type 304 stainless steel provides great resistance against crushing action and passes all acid tests. Several hundred thousand of these tubes are now giving perfect service in Southern dye plants. Write for quotations.



**TOOL SERVICE ENGINEERING CO.**

309 W. Crowell St.

Monroe, N. C.

**SOLVAY**



**Why  
America's  
Leading  
Textile  
Producers  
Know They Can  
Always Depend  
on SOLVAY®**

- ✓ Quality Textile Chemicals!
- ✓ Largest Alkali Production Facilities in the World!
- ✓ An Industry-Wide Technical Service Devoted Exclusively to the Textile Industry!
- ✓ Over 200 Local Stock Points that Assure You of Fast, Dependable Deliveries!
- ✓ 13 Local Sales Offices with Trained and Experienced Salesmen to Serve Your Individual Needs!

**SODA ASH  
CAUSTIC SODA  
LIQUID CHLORINE  
SODIUM NITRITE  
POTASSIUM  
CARBONATE**  
(Calcined and Hydrated)

**SOLVAY PROCESS DIVISION**

Allied Chemical & Dye Corporation  
61 Broadway, New York 6, N. Y.  
BRANCH SALES OFFICES:  
Boston • Charlotte • Chicago • Cincinnati • Cleveland  
Detroit • Houston • New Orleans • New York  
Philadelphia • Pittsburgh • St. Louis • Syracuse

# Bleaching, Dyeing & Finishing

## Carrying Developmental Work Through To Plant Vat Dyeing Procedures

By F. O. STONE—Part Two

THE initial article of this series covered a brief report on the vat-acid method of applying vat dyes to the cellulosic fibers. This article will cover the water soluble vats which are chemically the sodium salts of acid esters of Anthraquinone and Indigoid vat dyes (leuco form).

The first soluble vat dye to be produced was made from leuco form of indigo. This dye was Indigosol O prepared by Doctor Bader, a German dye chemist, in 1921. Due to the fact that Indigosol O was the first dye produced, these water soluble vats have been commonly known as Indigosols (Carbic Color Co. and Durand & Huguenin, Swiss makers).

The water soluble vats due to their simplicity of application found widespread use in dyeing pastel to light medium depth shades on cellulosic fibers and fabric. Application to cellulosic fibers will be covered in this article only; at a later date the application of water soluble vats will be discussed on other fibers.

Finishing plants through co-operative study with the A.A.T.C.C., British Dyers and Colorists Society and leading dyestuff firms have found it advantageous to use both the vat-acid method for applying vat colors as well as soluble vat colors, as both types of application supplement each other for economically-operated plants. Most water soluble vat application is carried out on continuous ranges on cellulosic-type piece goods and this article will so limit itself to this type of application.

For light and medium shades that require vat-fastness the dyer has several choices of vat dye applications to choose from. Light and medium shades can be run in the conventional manner, by the vat-acid method, or with the water soluble vats.

The appearance of the difficult-to-penetrate fibers are vastly improved in appearance when dyed either by the vat-acid method or with the water soluble vats, rather than by the conventional vat dyeing method. For ease of application and economy, the water soluble vats are preferred; however, equipment at hand, and the shade itself, dictate whether or not the shade could better be run by the vat-acid method or with the water soluble dyes.

The water soluble dyes give excellent penetration and solidity of shade on tightly woven goods of cellulosic construction. They have the further advantages of being applied by simple application on conventional equipment, excellent uniformity and ease of duplication, and with light shades the total cost of dyeing is less than when dyeing with vat colors.

The water soluble vats are leuco esters of the vat dyestuffs and are sold under such names as Algosol, by General Dyestuff Corp.; Solvat, by National Aniline; Indigosol, by Carbic; Soluble Vat, by Calco; Soluble after the name of the vat dye, by Du Pont and Amanthosol, by American Aniline Products.

### LIST OF VAT DYES AND THEIR WATER SOLUBLE VAT DERIVATIVES

YELLOW	
<i>Water Soluble Vats</i>	<i>Regular Vats</i>
Soluble Vat Yellow GC	Vat Flavone GC
" " Golden Yellow IGK	" Golden Yellow GK
" " " IRK	" " " RK
" " Orange	
" " Golden Orange IRR	" Golden Orange RR
" " Orange HR	" Orange R
" " Brilliant Orange IRK	" Brilliant Orange RK
RED, SCARLET AND PINK	
Soluble Vat Pink IR	Vat Pink FF
" " Red IFBB	" Red FBB
" " Scarlet HB	" Scarlet G
" " Red HR	" Red R
BLUES	
Soluble Vat Indigosol O	— Indigo
" " Blue O4B	Vat Indigo Blue 4B
" " " IBC	" Blue RCL
" " " O6B	" Indigo 6B
VIOLET	
Soluble Vat Violet IRR	Vat Violet RR
" " Red Violet IRH	" Red Violet RH
GREEN	
Soluble Vat Brilliant Green IB	Vat Jade Green
" " Olive Green IB	" Olive Green B
GRAY	
Soluble Vat Gray IB	Vat Black B
BROWN	
Soluble Vat Brown IBR	Vat Brown BR
" " Brown IRRD	" " RRD

These different soluble vats possess different rates of affinity or substantivity for cellulosic fibers and fabrics. This substantivity rating is of great practical value and these colors are grouped according to their affinity pick-up.

*High Pick-up:* Brilliant Green and Olive Green IB, Blues



## BLEACHING, DYEING & FINISHING

04B and 06B, Brown IBR, Gray IB and Golden Yellow IRK.

*Moderate To Good Pick-up:* Violet IRR, Brown IRRD, Orange HR, Red HR, Golden Yellow IGK and Golden Orange IRR.

*Slow To Moderate Pick-up:* Blue IBC, Indigosol O, Pink IR, Red Violet IRH and Brilliant Orange IRK.

The principal characteristic of the soluble vat is its ability to change to the original dyestuff in a very limited period of time. For this reason, and because of their low substantivity on cellulosic fibers, the water soluble vats are excellently suited for continuous dyeing machines. The main method used for dyeing, with the continuous ranges, is the nitrite process. With this process the goods are padded with a mixture of the soluble vats and sodium nitrite, followed by a developing padding with sulfuric acid.

Before discussing the conventional continuous ranges and practical water soluble vat formulae for such, a few of the more pertinent characteristics of the water soluble dyes will be discussed. It is hoped that this information will be of some value in your soluble vat applications.

In padding applications, low substantivity promotes better penetration and solidity of shade. The higher the temperature the less the affinity the soluble vats have for cellulosic fibers. Padding temperatures, therefore, are relatively high and vary between 150° F. and 175° F. High running speeds and low volume pad boxes also minimize different exhausting properties of the water soluble dyes. Intermediate drying should be carried out after padding and before developing when using soluble vats with low affinity. Drying limits the amount of undeveloped leuco esters which may be washed off the fabric in the development pad before oxidation of the color is completed. This drying phase improves color yield and crocking. When goods are developed wet (without drying), water and nitrite are carried over to the developing bath. A build-up of water can so dilute the developing bath that retarded development and shade variation can occur. Carryovers of large amounts of

nitrite build ever stronger nitrous acid concentrations in the sulfuric acid bath. This increase in nitrous acid causes over-oxidation. Wet developments, therefore, should not be made with easily oxidized colors such as Olive Green IB and Blue IBC. Wet developments should be restricted to pale shades and to that group of soluble vats that are easy to develop. Wet developments should never be made without a fairly vigorous overflow of liquor at the development pad to prevent too large a build-up of nitrous acid.

The oxidizability of the leuco esters varies. Commonly used water soluble vats that are easily over-oxidized are Olive Green IB and Blue IBC. The best way to counteract over-oxidation is by an addition of thio-urea or sodium thiosulphate. With these easily over-oxidized colors the dyestuff solutions and baths are particularly sensitive to acids. A small amount of acid can weaken or even decompose a dye bath. Decomposition when once started liberates more and more acid in a chain reaction which eventually can oxidize an entire bath. It is therefore necessary to neutralize goods to be dyed—the dyeing machinery, buckets and other implements coming into contact with the dye.

Many of the soluble vats are sensitive to light when in the pre-developed stage. Evidently the ester groups are so affected by light that premature oxidation to a limited extent occurs. Lids on water soluble dye containers should be tightly closed and bright lights should not hang above the mixing tanks. If the machinery is close to windows, then those windows should be painted with a mixture of lime and UI-tramarine blue.

Shade developments are usually run and tested in the laboratory before actual plant runs are made. It is necessary to check the ability of certain shades to build and still maintain fastness and good dyeing qualities. Separate color and auxiliary stock solutions are made.

### I—COLOR SOLUTIONS

Color .....	20	grams
TSPP .....	2	grams
Non-ionic wetting agent .....	2	cc
Soda Ash .....	10	grams

Bulk to 1 Liter

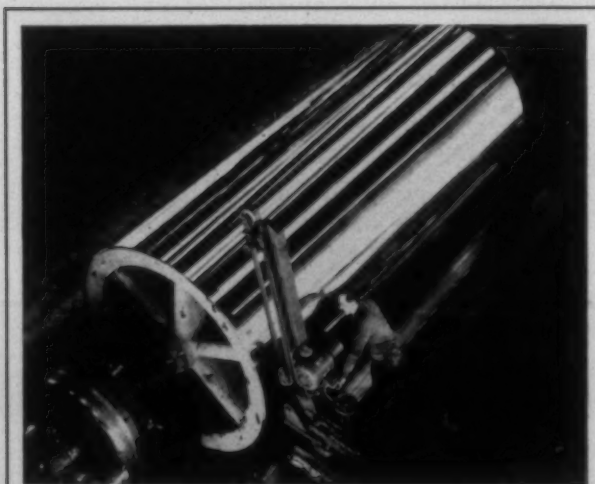
### II—AUXILIARY SOLUTION

Glauber's Salt .....	250	grams
Sodium Nitrite .....	50	grams
Sodium Thiosulphate .....	62.5	grams
Non-ionic wetting agent .....	5	cc
Soda Ash .....	10	grams

Bulk to 5 Liters

Padding liquor is made by mixing numbers I and II together. *Example* . . . ten grams of color per liter is wanted, and therefore 500 c.c. of stock solution number I is taken and bulked to one liter with 500 c.c. of stock solution number II. Pad at 160° F. and develop wet or dry. *Develop:* Use 25 c.c. of Sulfuric Acid in one liter of water at 140° F. Immerse in acid for ten seconds—air ten seconds—insert in cold water. The sample is then boiled for one minute in a two per cent soap and soda ash bath for one minute, then hot and cold rinsed.

The soluble vat dyes are run on a variety of continuous type ranges. Most plants using the soluble vats in any quantity, however, usually prefer to make a special range of their own.



**BIG CARPET ROLLER**—Putting finishing touches on the face of big 28-ton jacketed steel dryer roll—one of the largest ever made—built by Lukenweld, a division of Lukens Steel Co., Coatesville, Pa. The eight-foot diameter roll, 19 feet long, will be used by the C. H. Masland Co., Carlisle, Pa., as a giant ironing machine to press and dry broadloom carpet in the final step of rug-making operations. Because of the size of the dryer, it had to be specially designed structurally.

The Williams unit is so devised that it is ideal as a developing unit for the soluble vats. Skying following the unit is not necessary as the fabric is immersed in the developing liquor for a long enough period of time to fully develop the shade.

The pad steam range has proven itself to be quite capable for the application of soluble vats. The padder serving as a developing bath, however, should be so devised that the goods are immersed for a period of not less than two seconds in the sulfuric acid bath and an efficient turnover of fresh developing liquor must also be effected.

Let us assume that the goods to be run are rayon gabardine and that a tan shade is desired. The yardage in question necessitates the use of 500 gallons of leuco ester pad liquor.

#### LEUCO ESTER PAD 500 GALLONS AT 150° F. (FIVE TONS PRESSURE)

Brown IBR .....	8 lbs. 7 oz.
Olive Green IB .....	1 lb. 12 oz.
Golden Yellow IRK .....	8 oz.
Sodium Nitrite .....	25 lbs.
Sodium Alginate .....	5 lbs.
Soda Ash .....	4 lbs.
TSPP .....	1 lb.

Heat the water to the desired temperature, then add the TSPP, soda ash, nitrite and dye in order. Direct steam must not be used in any case for maintaining the temperature of the padding baths. The heat, of course, is maintained by indirect heating.

The tables should be consulted for the proper amount of nitrite to be used. Generally, however, one ounce of

nitrite per gallon will suffice and when intermediate drying is carried out the amount of nitrite in the pad liquor can be cut by one-fourth. The TSPP acts as a water softening and sequestering agent and the amount to be used depends upon the hardness of the water. The soda ash has a stabilizing influence on the padding liquor. The sodium alginate (properly dissolved) is very effective in preventing migration of color in the hot flue.

While nip padding is preferred, as there is less opportunity for differential pick-up, the shade under discussion was dip padded and this was entirely satisfactory as the relatively high speed of 70 yards per minute was maintained during the run and a shallow pad box was used.

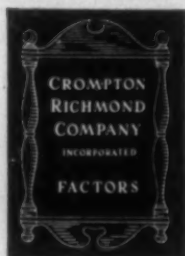
The hot flue dryer was set at 325° F. to effectively dry the cloth before it entered the chemical pad.

#### CHEMICAL PAD 150 GALLONS AT 130° F.

Sulfuric Acid .....	3 Gallons
Deceresol .....	3 Ounces

The development is carried out in a two per cent (by volume) solution of Sulfuric Acid at 130° F. Developmental time is two plus seconds followed by an air passage of 25 seconds.

Because rayon has a marked tendency to swell when wet, expanders more efficient than the usual micox must be employed at the chemical pad to prevent the cloth from wrinkling. The steam chamber merely acts as a skying device to complete the development of the shade and the rest of the range is used to rinse, neutralize, soap, rinse and dry the goods. One ounce per gallon of soda ash is required in the neutralizing box to thoroughly neutralize the sulfuric acid remaining in the goods.



*The Human Factor*

## Experience In The South

Factoring for the South requires a specialized knowledge of the South regarding its manufacturing and distribution problems.

Crompton Factoring has that knowledge—acquired after many decades of experience in producing and factoring in the South.

Thus, we not only supply immediate cash for receivables, but wise counsel—when asked for—on the many problems a Southern business man is confronted with.

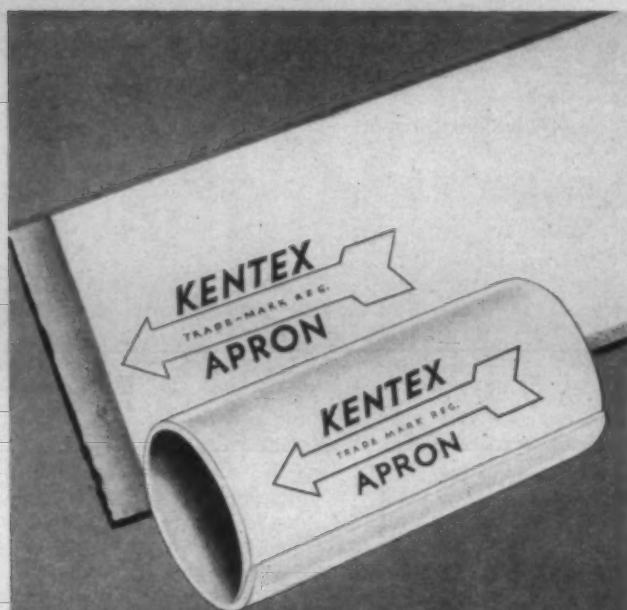
Crompton Factoring also means that we assume all credit risks and collection chores—a gratifying relief to a busy Southerner.

Representative: VON D. OEHMIG, Green Island Hills, Columbus, Ga.

**CROMPTON-RICHMOND CO., INC.**

1071 Avenue of the Americas, New York 18, N. Y.





## KENTEX PRECISION APRONS

... are custom-built—  
of finest bark tanned  
or chrome leather — to fit your  
*exact* requirements, and are pre-  
cision gauged at each manufactur-  
ing stage to assure absolute uni-  
formity.

If you aren't using KENTEX  
long draft textile aprons, it will  
pay you to put some to work on  
your frames now. Send us your  
specifications and we'll be glad  
to send free samples and prices.



# TEXTILE APRON COMPANY

EAST POINT, GEORGIA

WORLD'S LARGEST MANUFACTURERS OF GENUINE LEATHER APRONS

Hugh Williams & Company, Toronto, Canada—Canadian Representative

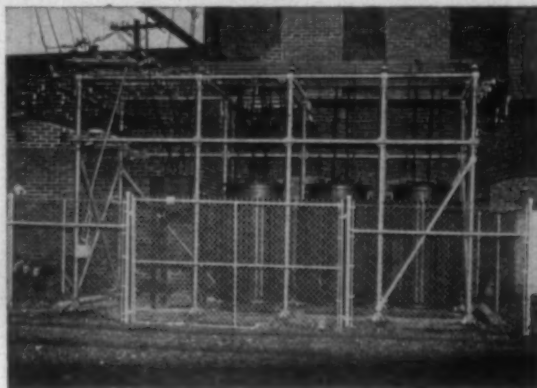
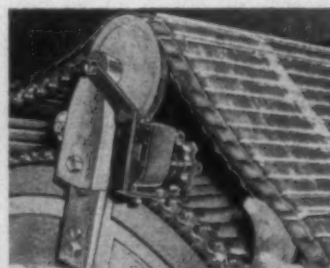


Photo showing Sub-Station structure furnished and installed by Southern Electric Service Company, Inc., Charlotte, North Carolina. This was designed for 2400 volts primary to 600 volts secondary for conversion to 4160 volts, 3 phase, Wye connection primary to 600 volts secondary.

For Highland Park Manufacturing Company, Charlotte, N. C.

### Southern Electric Service Co.

Charlotte • Greensboro • Spartanburg • Greenville



For Thorough,  
Easy Oiling of  
Card Flat Chains  
with No Lost  
Production Time

## More Than 70 Southern Mills Are Using M & J AUTOMATIC CARD FLAT CHAIN LUBRICATORS

Oils chain while card is operating . . . Increases life of chain by more than 40% . . . Reduces replacements of costly gears . . . eliminates "bucked flats" which cause inaccurate settings . . . Easy to install

20 DAYS FREE TRIAL IN YOUR MILL!

For Additional Data Write

### W. G. JARRELL MACHINE CO.

P. O. Box 2154

Charlotte, N. C.

Agents:

Charlotte Mfg. Company, Charlotte, N. C.; Quality Parts and Repair Co., Box 623, Gastonia, N. C.; Textile Supply Co., Dallas 1, Texas; Methune Card & Napper Clothing Co., Columbus, Ga.; C. F. Campbell, 1022 Crescent Ave. N. E., Atlanta, Ga.; A. Ben Davis, 2710 Picardy Place, Charlotte, N. C.



## PERSONAL NEWS



Frank Tinney Jr.

Frank H. Tinney Jr. has been named chief industrial engineer, fabric production division, United Merchants and Manufacturers Inc. Mr. Tinney was formerly industrial engineer of the company's Elberton (Ga.) Mills plant. He assumed his new duties June 1. Mr. Tinney has held various engineering positions with Jacobs Aircraft Engine Co.; Firestone Tire & Rubber Co.; and Burlington Mills Inc. He has been with United Merchants since 1950.

Marvin A. Law has joined the managerial staff of Cone Mills Corp.'s synthetic division at Greensboro, N. C. He has been with Burlington Mills Corp. in a similar capacity for the past 11 years.

The personnel managers division of the Cotton Manufacturers Association of Georgia recently elected A. C. Parker, Goodyear Clearwater Mills, chairman of the group, succeeding O. C. Phillips, Swift Mfg. Co., Columbus.



L. C. Greene

Standard Chemical Products Inc., Hoboken, N. J., and Charlotte, N. C., has appointed Lewis C. Greene to its sales staff, to cover parts of North and South Carolina and Georgia, with headquarters in Greenville, S. C. Before joining Standard, Mr. Green was for four years superintendent of the cotton division, North Carolina Finishing Co., Salisbury, N. C. Prior to that, he held positions in charge of dyeing and finishing during the 21 years with the company.

Appointment of Edward F. Skinner, vice-president of Meinhard & Co. Inc., to the National Panel of Arbitrators of the American Arbitration Association has been announced. As a member of the panel, Mr. Skinner will be available for selection by parties submitting commercial disputes to arbitration.

Henry M. Brabham, superintendent of Musgrove Mills, Gaffney, S. C., has been appointed superintendent of the Alma Mills, Gaffney, succeeding Glenn White. Mr.

Brabham has been with the Hamrick group of mills for about 12 years. Mr. White had been head of the Alma plant for the past seven and a half years.

Wesley H. Suit, head of the standards department at Fieldcrest Mills, has been installed as president of the Society for the Advancement of Management, Greensboro, N. C., area chapter.

Harold Clark, formerly superintendent of Avondale Mills plant at Pell City, Ala., has been appointed director of the company's customer technical service. In this capacity Mr. Clark will assist customers with manufacturing problems and recommend new services and products for the company to develop. . . . French O. Whitten, assistant to Mr. Clark at Pell City, has been promoted to superintendent there. . . . Earl Smith has been promoted to day supervisor of Eufaula's Cowikee Mills Inc. plant to

succeed Brady Rogers. Mr. Rogers was promoted to superintendent of the Eufaula plants. Mr. Smith, formerly night supervisor, will be succeeded by Roy Andrews, who has been promoted from the weave room at the No. 3 mill.

Edward Usry has joined Union Bleachery, Greenville, S. C., as an assistant superintendent. Mr. Usry was formerly with Erwin Mills.

Dr. Carl F. Prutton has been appointed vice-president and technical director of the chemical divisions of Food Machinery & Chemical Corp., New York City. Dr. Prutton graduated from Case Institute of Technology in 1920 and joined the staff of the school as an instructor. In 1936 he was appointed head of the department of chemistry and chemical engineering, a position he held until 1948. From 1942 to 1944, he was chief of the process development branch, Office of



Campbell, W. Carter, Stevens, H. Carter

**A POINT OR ORDERLY HONOR**—While he was at North Carolina State College Sunday, June 6, to receive an honorary degree of Doctor of Textile Science, Secretary of the Army Robert T. Stevens visited the college's School of Textiles. He is shown here with three other textile leaders, Dean Malcolm E. Campbell of the School of Textiles; W. J. (Nick) Carter of Greensboro, executive vice-president of J. P. Stevens Co. and president of the North Carolina Textile Foundation Inc.; and Harry C. Carter of Greensboro, also a vice-president of the Stevens operations headquartered in Greensboro.

## PERSONAL NEWS

Rubber Director and a consultant to the War Production Board, Dow Chemical Co. and the Lubrizol Corp. In 1948 Dr. Prutton joined Mathieson Chemical Corp. as director of research and a year later was appointed vice-president, director of operations, engineering and research, serving also as an officer and director of a number of Mathieson Chemical Corp. subsidiaries.



W. H. Miller

W. H. Miller has been named director of sales of Sonoco Products Co., Hartsville, S. C. Mr. Miller, who has been with Sonoco for more than 20 years, has been associated with production and standards departments. He was formerly assistant to the president of Sonoco. He has just returned from Mexico City where for the past year he has been general manager of Sonoco's Mexican subsidiary, Sonoco de Mexico.

Carl Pacifico has been named director of market development of American Alcolac Corp., Baltimore, Md. In this capacity Mr. Pacifico will develop new industrial markets for the synthetic detergents manufactured by the company. He was formerly with Publicker Industries Inc. and Wyandotte

Chemical Corp. He was director of development at Wyandotte until joining Alcolac. Mr. Pacifico has written a number of technical articles for chemical journals.

Robert F. Lewis has been named manager of a new division handling sales of metallic yarn for Reynolds Metals Co. at Richmond, Va. Mr. Lewis formerly handled sales of metallic yarn in the Southeast. He will make his headquarters at the firm's executive offices in Richmond.

A. V. Caporossi, sales engineer and office manager for Morrison Machine Co., Paterson, N. J., has been appointed a sales agent for the company. He will cover the Mid-Atlantic states and some Southern and Midwestern states. Mr. Caporossi has been with Morrison since 1935.

Palmer Freeman, personnel manager of the Springs Cotton Mills, Fort Mill, S. C., has been elected president of the Fort Mill Lions Club.

Joseph B. Ely, former governor of Massachusetts, is the new president of American Woolen Co., succeeding Francis W. White, who remains as a director. Mr. Ely was elected at a board meeting of the company last month in New York City.

J. C. Boyce has been named general manager of Morgan Mills, Laurinburg, N. C. Mr. Boyce was formerly superintendent of Inman Mills at Enoree, S. C. Prior to that he was with Pelzer (S. C.) Mills. In 1940 he joined Jackson Mills at Iva, S. C., and

was general superintendent of Iva and Jackson plants. Later he was with Mayfair Mills, Arcadia, S. C.



T. E. Lucas

Thomas E. Lucas has been appointed general manager of all operations, Associated Textiles of Canada Ltd. in Louiseville, P. Q. Mr. Lucas, formerly manager of Dominion Burlington Mills Ltd., Sherbrooke, P. Q., is a graduate of Clemson (S. C.) College. Prior to his Sherbooke assignment, he was in the executive offices of Burlington Mills Corp., Greensboro, N. C. The executive offices of Associated Textiles of Canada Ltd. are maintained in Montreal.

Erwin G. Walker has been promoted to general sales manager of the dyestuffs department of American Cyanamid Co. Mr. Walker, currently Southern sales representative for the Calco Chemical Division in Greensboro, N. C., will assume his new duties on August 1. He will make his headquarters in Bound Brook, N. J.

Karl Robbins, chairman, and three other members have resigned from the board of Robbins Mills Inc. Others who have left are Murray Kramer, W. P. Saunders and T. Edmund Beck. Mr. Robbins and members of his family recently sold about 41 per cent of the Robbins stock to the J. P. Stevens Co.

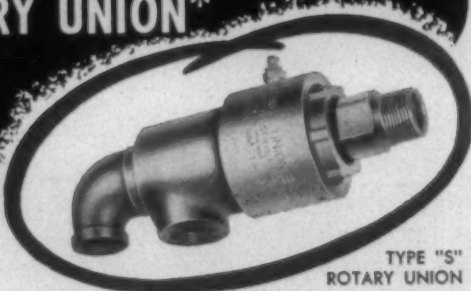


C. L. Paine

Charles L. Paine, formerly executive vice-president of Courtaulds Inc. and its subsidiary, Courtaulds (Ala.) Inc., has been elected president of both companies. Mr. Paine succeeds Col. F. T. Davies, a director of the parent British company, Courtaulds Ltd. Col. Davies was president of the Courtaulds American companies during the construction and start-up period of the Alabama plant. Mr. Paine came to this country in 1951 in connection with the preliminary survey preparatory to the launching of the project to establish the new plant. He had joined Courtaulds Ltd. in England as an economist in the market research department in 1937—three years after he was graduated in economics from London University. During World War II Mr. Paine served in the British Ministry of Economic Warfare and was stationed in Spain and Portugal. Upon his return to Courtaulds in 1946 he was made head of the market research division of the company. He was elected vice-president of the American Courtaulds companies in June 1951.

Treesdale Laboratories and Textile Processing Co., Pittsburgh, Pa., has announced the appointment of Cletus W. Snider of Cornwall, Ont., as assistant to the president. Mr. Snider comes to Treesdale from Canadian Cottons Ltd., where he has been assistant superintendent. For the past 18 years, he has held executive and supervisory

## Here It Is! The New ROTARY UNION\* That Permits Field Repair



TYPE "S"  
ROTARY UNION

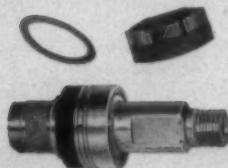
### All Past Advantages:

This new Field Repair ROTARY UNION has all of the advantages of former models. It is self-aligning, self-adjusting, and will give you the same long trouble-free service which has made ROTARY UNIONS the favorite of mill men.

**Plus Field Repair:** Now you can repair ROTARY UNIONS in your own shop. Any ordinary mechanic can do this in a few minutes with standard maintenance tools.

**Present Units Are Convertible:** You can easily and quickly convert your present ROTARY UNIONS to field repair units, using the simple conversion unit shown here.

**Rotary Unions** are now better than ever on your slashers, dry cans, calenders, and embossing and printing machines. Call our nearest office for details or write Dept. 6B for our new catalog.



"Where Good Connections Count"®

**PERFECTING SERVICE CO.**

332 Alameda Ave. Charlotte, N. C.  
(Home Office & Factory)

Chicago  
Cleveland  
Providence  
New York  
Montreal  
Toronto

\*Trade Name—Patented

position covering dyeing, finishing and manufacture. Recently he visited 25 American mills in five months, studying new methods in large plants in the Southern states.

Charles S. Smart Jr., formerly a sales engineer at Charlotte, N. C., for Saco-Lowell Shops, has been named manager of the newly-created central engineering department of M. Lowenstein & Sons. Mr. Smart, a graduate of N. C. State College, will make his headquarters in Anderson, S. C.

Dan Moss has been promoted to plant superintendent at Burlington Mills Corp.'s Dublin (Va.) Finishing Plant. . . . Bob Green, formerly assistant at the corporation's Franklinton, N. C., plant, has been named superintendent of the Newton (N. C.) Rayon Plant.



R. E. DeLapp Jr.

Robert E. DeLapp Jr. has been named sales representative for Southern Sizing Co. Formerly with Keever Starch Co., Greenville, S. C., and more recently the Celanese Corp. of America, Charlotte, N. C., Mr. DeLapp will make his headquarters in Atlanta, Ga., and represent Southern Sizing throughout its sales area.

Charles M. Geer Jr. has been named head of quality control of Dixie Mills Inc., La-Grange, Ga. A graduate of Georgia Tech, Mr. Geer was previously with Abbeville (S. C.) Mills Corp. as an industrial engineer.

Thomas T. Patton, president of Hunt Loom & Machine Works Inc., Greenville, S. C., has resigned. The company was recently placed in Common Pleas Court receivership in an action by Abney Mills, holder of a mortgage on assets of Hunt. A receiver's report will be filed June 30. Mr. Patton had been president of Hunt since Sept. 1, 1952.

Francis J. Aiken has been appointed manufacturing technician for the filament plants of Textron Inc. In this capacity, Mr. Aiken will report to Leslie Cobb, who is technical and quality control manager of Textron Southern, Mr. Aiken was formerly with Textile Equipment Corp., Greenville, S. C.; U S Bobbin and Shuttle Co., Lawrence, Mass.; Verney Corp. and Deering, Milliken. He will make his headquarters in Anderson, S. C.

Harold Roberts has been appointed assistant general mill manager in charge of all commission throwing operations for the Duplan Corp. The company has throwing plants at Winston-Salem, N. C., Cleveland, Tenn., and Kingston, Pa. Prior to his appointment, Mr. Roberts served as special assistant to the general manager.

Appointment of George B. Monk as fiber sales and service representative of National Aniline Division, Allied Chemical & Dye Corp., New York City, has been announced. Following many years of association with the woolen and worsted industries, Mr.

C HAMBRAY

LAWN

I NTERLINING

N AINSOOK

T ICKING

O SNABURG

N ETTING

F LANNEL

O RGANDY

O XFORD

D ENIM

S HEETING

I MPERIAL

N ANKING

C HINTZ



**STANDARDIZED  
STARCHES  
FOR THE SIZING  
AND FINISHING OF  
TEXTILES**

**CLINTON FOODS  
INC**

**Corn Processing Division**

**CLINTON, IOWA**



## PERSONAL NEWS

Monk has been with American Bemberg for the past seven years. He is a graduate of N. C. State College and a member of a number of technical societies. In his new position, Mr. Monk will be concerned with sales and service of the nylon soon to be produced at National Aniline's Chesterfield plant, now under construction at Hopewell and Bermuda Hundred, Va.

J. Spencer Love, board chairman of Burlington Mills, has been initiated as an honorary member of Beta Gamma Sigma, national honorary society for commerce and business administration at the University of North Carolina, Chapel Hill.

Charles S. Clegg, president of Globe Mills Co., Mt. Holly, N. C., was recently elected chairman of the Duke National Council, an alumni organization of Duke University, Durham, N. C. Mr. Clegg graduated from Duke in 1926. . . . B. Everett Jordan, secretary and treasurer of Sellers Dyeing Co., Saxapahaw, N. C., was elected as a representative at large for the Duke alumni Athletic Council.

Walter T. Coker has been appointed assistant district manager of the Armstrong Cork Co.'s Greenville, S. C., office. Mr. Coker joined the Armstrong organization in 1935 and has served as a member of the Greenville district office sales staff since that time. A native of Timmonsville, S. C., Mr. Coker spent several years in various positions in the textile industry prior to joining Armstrong.

The Onyx Oil & Chemical Co. of Jersey City, N. J., has announced the transfer of E. W. Klumph from North Carolina to Florida. He has served the Charlotte area for over 20 years in the capacity of sales representative. Mr. Klumph, a graduate of the Colorado School of Mines, represents Onyx to many types of industrial firms.

James R. Killian Jr., president of Massachusetts Institute of Technology; Kenneth R. Fox, vice-president of Fabric Research Laboratories; and Martin J. Lydon, president of Lowell Technological Institute, were awarded honorary degrees of Doctor of Science at the 56th Commencement of Lowell Technological Institute on Monday, June 7.

Collins & Aikman Corp. has announced several changes in personnel organization effected June 1. Robert W. McCullough, formerly director of manufacturing, was appointed assistant to the president. W. Roland Keen, director of research and technical control, has assumed the duties of the director of manufacturing.

Walter A. Robbins has been promoted to the position of chief plant engineer for Dan River Mills Inc., Danville, Va. He succeeds W. H. Beers, who is now chief engineer for the Miller Brewing Co.

American Enka Corp. has retained Howard Ketcham, well-known authority on color, to style its solution-dye filament rayon yarns. His assignment will be to design colors combining maximum style ap-

peal with the colorfast qualities of American Enka's Jetspun yarn. For more than 20 years Mr. Ketcham has been a color consultant and stylist.

Harry E. New has been appointed manager of the technical sales service division of The Chemstrand Corp. Mr. New, who joined The Chemstrand Corp. in March 1953, following 14 years with the American Viscose Corp., will continue to make his office at the corporation's headquarters at Decatur, Ala.



R. E. Elwell

graduate of Philadelphia Textile Institute, Mr. Elwell has represented Sandoz Chemical Works in the Paterson, N. J., area for the past four years.

Paul B. Halstead will retire from Cone Mills Inc. on August 1 at the age of 68. For the last three years he has been head of Cone Mills statistical department. Prior to joining Cone Mills he was statistician in the New York office of the newly formed American Cotton Manufacturers Institute located in Charlotte, N. C. Mr. Halstead joined the Cotton-Textile Institute in 1927 as statistician; in 1929 was elected secretary and in 1931 he became treasurer. He held these offices until the dissolution of the Cotton-Textile Institute in 1949. Other posts held by him were secretary of the Cotton Textile Code Authority under N.R.A.; secretary-treasurer of the Cotton Weavers Committee for O.P.A.; secretary-treasurer of the General Arbitration Council of the Textile Industry from 1942 until he resigned that office in 1951; treasurer of the Associated Denim Producers; treasurer of the Textile Industry Committee on Public Relations; and alternate member of the Textile Advisory Committee of the Army-Navy Munitions Board.

Maj.-Gen. Robert P. Hollis, commanding general of the New York Quartermaster Purchasing Agency, New York City, has been appointed commanding general of the Philadelphia Quartermaster Depot as an additional duty, succeeding Brig.-Gen. Richard B. Thornton. As previously reported, the decision was recently made to relocate the agency in the Philadelphia Depot.

E. Waring Best has been named to the new post of assistant general sales manager of the textile division of Celanese Corp. of America. He will work out of the new office building at Charlotte, N. C. Mr. Best was formerly an executive with Celanese Services, S. A.

William Iselin & Co. Inc. has appointed John C. Richards its new business representative in the states of North and South Carolina and Virginia. Mr. Richards, who will make his headquarters in High Point,

The appointment of Ralph E. Elwell as Southern sales representative covering North and South Carolina, has been announced by Berkshire Color & Chemical Co. of Delawanna, N. J. Mr. Elwell will make his headquarters in Charlotte, N. C. A

N. C., has been associated during the past four years with the Bank of New York in credit and new business work. He is a graduate of the University of Virginia.

American Enka Corp. has announced the promotions of Dr. J. L. Bitter as vice-president for research and development, of Gordon V. Hager as treasurer of the company, and of C. Chester Bassett Jr., as general sales manager in charge of the sales division. Dr. Bitter has been director of research for American Enka since 1949. Mr. Hager joined the company in 1947 and has been assistant treasurer since 1949. Mr. Bassett came with the company in December 1953, as special assistant to the president for sales and product development. With the changes in corporate organization being made at this time, American Enka will be centered in four divisions: finance division under the direction of Gaylord Davis, financial vice-president and general counsel; manufacturing division under the direction of Dr. Martin Wadewitz, vice-president for manufacturing; research and development division under the direction of Dr. Bitter; and the sales division under the direction of Mr. Bassett. M. Boylan Carr will continue as manager of the textile sales department and T. Redmond Thayer will continue as manager of the industrial sales department, formerly known as the high tenacity sales department. J. K. Hanson is manager of the advertising and promotion department. The three district sales offices of American Enka are headed, respectively, by C. R. Hall, manager of the Piedmont district sales office, J. C. Scott, manager of the New England district sales office and E. W. Martin, manager of the Mid-Atlantic district sales office. Other changes announced by American Enka include the promotion of Robert T. Pullar as manager of the business analysis and market research department, formerly headed by Robert B. Armstrong, now administrative assistant to the president.



Dr. E. I. Valko

The appointment of Dr. Emery I. Valko as director of research has been announced by Onyx Oil & Chemical Co., Jersey City, N. J. Internationally known for his work in textiles and allied chemical fields, Dr. Valko will head up all research activities at the Onyx laboratories, continuing current projects and initiating a number of new ones. Dr. Valko's association with Onyx is a resumption of his relationship with the company from 1939 to 1946. In recent years he was associated as a project leader with the Polytechnic Institute of Brooklyn, and was an independent research consultant in the textile and allied fields. In 1952 Dr. Valko was appointed to a four-year term as Collaborator of the Cotton Fiber Section, Southern Utilization Research Branch, U. S. Department of Agriculture, at New Orleans. He is a Fellow of the Textile Institute, Manchester, England, and of the New York Academy of Sciences. Prior to his first association with Onyx, Dr. Valko served in the research department of I. G. Farbenindustrie in Germany. Holding many German, British

## QUALITY WORKMANSHIP with PROMPT SERVICE

Two to three weeks delivery on  
all repairs to Rollers, Flyers & Spindles

Repairing all types of Rolls and making new Steel Rolls  
Overhauling Drawing a Specialty

Repair and make NEW Card Room Spindles

Make new any Fluted Roll • Lifter Rods  
Gears • Trumpets

Satisfaction Guaranteed on all Work

## Gastonia Roller, Flyer & Spindle Co., Inc.

1212 E. Industrial Ave.

Gastonia, N. C.

Phone 5-1531

## The First— Successful Loom Cleaner SUN RAY CONDITIONER

Now, for the first time your looms can be cleaned quickly and efficiently without the use of inflammable liquids or water base, rust forming cleaners.

SUN RAY CONDITIONER is simple to use. It is completely harmless to the machine, to your personnel and the work in progress.

Cleaning with SUN RAY CONDITIONER is fast. A loom can be cleaned in a matter of minutes. After the initial cleaning the loom stays clean longer and "blows off" easily.

Eliminates "weavers hands."

Will not dry grease out of bearings.

Prevents re-deposit of lint and sizing.

Ask for a demonstration. Your GUARDIAN Man will gladly show you how easily and quickly you can clean your looms with SUN RAY CONDITIONER.



ATLANTA, GA.

708 Jefferson St., N. W.

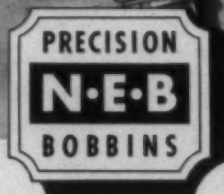
Telephone ELgin 6316

PRECISIONED TO SIZE — PRECISIONED FOR CONCENTRICITY  
— PRECISIONED FOR YOUR SPINDLES

## PRECISION BOBBINS\* with NEW LONG-LIFE FINISH

made to YOUR specifications

## for SILKS and SYNTHETICS



\*For SILK and SYNTHETICS — COTTON and SPUN RAYON  
— WOOLENS and WORSTEDS

NEW LONG-LIFE Finish on NEB PRECISION bobbins prevents yarn abrasion and snagging, resists pull and "crush" of nylon . . . smooth, polished, HARD, LONG-LIFE Finish means clearer weaving . . . no hairy or chafed filling with even the most delicate filaments . . . try NEBs with LONG-LIFE Finish on *your* looms — and compare!

## NEW ENGLAND BOBBIN & SHUTTLE CO.

Makers of PRECISION Automatic Loom Bobbins

NASHUA, NEW HAMPSHIRE

Representatives:

HENRY H. HERSEY  
Norwood Place  
Greenville, S. C.

HARRIS MFG. COMPANY  
443 Stonewall St., S. W.  
P. O. Box 1982, Atlanta, Ga.

H. W. CURTIS  
736 W. Crescent Ave.  
Allendale, N. J.

THE CHARLOTTE  
SUPPLY CO.  
Charlotte, N. C.

Export Agents  
VANDERBURGH & CO., INC.  
25 Beaver Street  
New York 4, N. Y.

HARRIS & UNDERHILL  
446 Statler Building  
Boston, Mass.



## PERSONAL NEWS

and American patents, Dr. Valko is the author of several books on colloid chemistry and has written and delivered many papers in fields of his interests. A resident of Mountain Lakes, N. J., Dr. Valko also holds memberships in the American Chemical Society, American Association of Textile Chemists and Colorists, The American Association of Textile Technology, The Fiber Society and other professional groups.

Lonnie N. Huffstetler, Gastonia, N. C., has joined Textile Banking Co. Inc., New York City, as Southern representative. Mr. Huffstetler recently resigned as Southern agent for Crompton-Richmond Co. Inc., New York City.

## OBITUARIES

**Ty Cobb Bass**, 44, sales representative in central North Carolina and southern Virginia for Textile Mill Supply Co., died June 4 at his home in Charlotte, N. C. Surviving are his widow, a daughter and a brother.

**Dr. Ernest B. Bengier**, 68, former director of the rayon technical division of E. I. du Pont de Nemours & Co. Inc., died at his home in Wilmington, Del., May 27. One of the national's outstanding research directors and an authority on synthetic fibers and films, Dr. Bengier was prominent in the development of cellophane, rayon, nylon and the later man-made fabrics. He retired in 1947 after 30 years with Du Pont. In 1950, the Du Pont company named the acetate research laboratory of the rayon department in

his honor. He is survived by his widow and a son.

**W. B. Cole**, 81, veteran textile executive, died June 13 at Pinehurst, N. C. Mr. Cole, who lacked one day of being 82 years old, was main promoter in 1906 of the Hannah Pickett Mill, Rockingham, N. C., which he and his associates sold to the Safie interests in 1944. He sold his Hannah Pickett No. 2 Mill (former Leak Mill) in December 1945, to the Robbins interests who sold it to the J. P. Stevens Co. Mr. Cole retired several years ago although he and his son, Bob, promoted the Sandhurst Hosiery Mill in Rockingham in the Spring of 1950.

**Kenneth F. Cooper**, 74, retired senior vice-president of American Cyanamid Co., died at his farm in Pine Plains, N. Y., May 23. From 1912 to 1916 he was general manager of American Cyanamid Co. He was elected to the board of directors and became a vice-president in 1916, and held these offices until his retirement in 1947. Survivors include his widow and two daughters.



Ward Delaney

in 1944 and served as its president until 1949 when he became associated with the foundation. He is survived by his widow and a son, Ward Delaney Jr.

**Ward Delaney**, 59, first president of the Institute of Textile Technology at Charlottesville, Va., died May 23. At the time of his death Mr. Delaney was executive director of the Oscar Johnston Cotton Foundation. Mr. Delaney organized the institute



Edwin Howard

and was active in the Southern Textile Association. Survivors include his widow, a sister and two brothers.

**John H. Pickup**, 71, died recently in Fieldale, Va. Mr. Pickup was a chemist with Fieldcrest Mills Inc., Fieldale, from 1920 until his retirement in 1948. He was born in Lancastershire, England, and came to this country at the age of four. Surviving are his widow and four sons.

**Fred Sails**, formerly with Atwood Machine Co., Greenville, S. C., and Universal Winding Co., Charlotte, N. C., died May 28 in St. Petersburg, Fla. Mr. Sails represented the Atwood Division of Universal in North Carolina, South Carolina and Virginia, for a number of years.

**Dr. Charles M. A. Stine**, 71, retired vice-president and still active member of the board of E. I. du Pont de Nemours & Co. Inc., died May 28 in Wilmington, Del. Dr. Stine was internationally known for his work in organic chemistry. He played a major part in high explosives work and in the field of dyestuffs. He joined Du Pont in 1907 and was primarily responsible for the initial research that led to the development of nylon. He is survived by his widow and two daughters.

## MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

**MOORESVILLE, N. C.** — Syntex Fabrics Inc., here, has been granted a state charter of incorporation to manufacture, finish and convert textiles. Authorized capital stock is \$110,000. Subscribed stock is \$400 by E. C. Beatty, Mary Lee Beatty and John L. Amburn, all of Mooresville. The firm recently purchased the No. 1 Plant of Mooresville Mills Inc.

**EL PASO, TEX.** — Texas Textile Mills, Dallas, Tex., is reportedly "seriously considering" construction of a textile mill here. According to unofficial sources, the plant would cost from \$1.5 to \$2 million and employ about 350 persons. Texas Textile Mills is a leading manufacturer of denim cloth. The company now has a large mill at McKinney and smaller plants in Waco and Gonzales. Giles Miller, president of the firm, has promised a decision on the location of the plant sometime in the late Summer or early Fall.

**WASHINGTON, N. C.** — National Spinning Co. Inc. has opened its new spinning mill here. The 55,000 square foot unit will spin

worsted zephyr yarns and nylon, Orlon acrylic fiber and Vicara zein fiber yarns on the worsted system. The company also has a mill at Jamestown, N. Y.

**TARPON SPRINGS, FLA.** — Gallagher Cotton Mills of Battle Creek, Mich., a division of Detroit (Mich.) Waste Works, has set up a small spinning and weaving mill here. Francis Catterall of Battle Creek is superintendent of the new plant, which manufactures carded yarns and industrial wiping cloths.

**MOORESVILLE, N. C.** — Premium Spinning Mills Inc. of New York City has offered to locate a woolen yarn mill here provided local citizens will subscribe to \$60,000 worth of stock in the venture. The proposed new company would be the third of a chain of mills owned by Mark Leopold and Richard A. Virgil of New York. Should the stock requirement be met, the plant would employ about 125 persons with an annual payroll of approximately \$250,000. Looking further ahead, Messrs. Leopold and Virgil have stated that if the company does

locate here, they plan to merge all three companies into one operation here. Such a merger would add several hundred persons to the payroll, it is estimated. According to the arrangement on the sale of stock locally, the two owners would reserve the right to purchase the plant and grounds from the stockholders at any time after the first year. Operating capital and machinery would be furnished by the two owners, it is reported.

**PICKENS, S. C.** — According to trade rumors, Kent Mfg. Co., Clifton Heights, Pa., will transfer all or part of its operations to a \$1 million plant being constructed here for the "Pickens Mfg. Co." The contractor and attorneys for Pickens Mfg. Co. have made no comment on the principals behind the company that is building here.

**CHARLESTON, S. C.** — Milton K. Emerson, a vice-president of United Piece Dye Works, Lodi, N. J., has arrived here to succeed Peyton Berry as general manager of the Charleston plant and has announced that local operations will be expanded quickly. He said that three printing machines, with



HOW TO REMOVE SCALE  
FROM SPRAY HEADS?

(See page 17)

HOW TO PREVENT SLIME  
IN WATER SYSTEMS?

(See page 20)



**THIS FREE HANDBOOK** gives you the answers to these problems, tells you how to

- Descale condensers
- Remove slime from humidifiers
- Clean finned coils of air washers
- Clean aluminum plates and screens
- Clean glass filter screens
- Descale cold diffusers

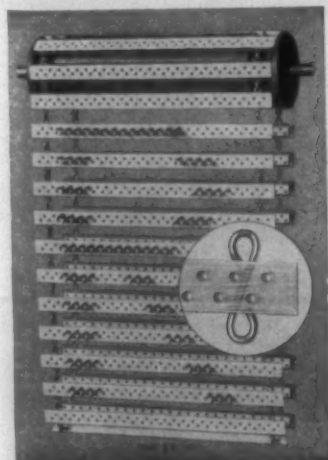
**FREE** handbook yours on request. Ask your local Oakite Technical Service Representative, or write Oakite Products, Inc., 52D Rector St., New York 6, N. Y.

*Technical Service Representatives in Principal Cities of U. S. & Canada*

**OAKITE** SPECIALIZED INDUSTRIAL CLEANING  
MATERIALS • METHODS • SERVICE

## RICE IMPROVED DOBBY BARS

The improved bar with clear peg holes and eyes that will not twist. Made of thoroughly air dried stock.



Other Loom Supplies  
**HARRIS "HEAVY DUTY"**  
LUG STRAP  
PICK-ARM STRAPS  
"WIRECORE"  
LOOM CORD  
FIBRE AND LEATHER  
ADJUSTING STRAPS  
DOBBY PEGS  
SPECIAL BRAIDED  
LOOM CORDS

**RICE DOBBY CHAIN COMPANY**  
MILLBURY, MASSACHUSETTS

*Southern Representatives*

R. E. L. Holt, Jr. Associates, Inc.

Jefferson Bldg. P. O. Drawer 1319 Greensboro, N. C.

## There is a Collins Twister for Every Twisting Construction



Get highest speed production for cotton, wool, worsted, paper, rayon, silk, glass, asbestos or practically and plied yarn. We've been solving twister problems successfully since 1866. Consult us any time without obligation.



Ask for data on —

### Collins Brothers

Plain & Wet Twisters  
Trap Twisters  
Novelty Twisters  
Miscellaneous Twisting Equipment

### Easton & Burnham

Carpenter Reels  
Improved Inman Automatic Banders  
Skein Winders  
Spoolers  
Spindles.

### Chas. A. Luther & Co.

Cloth Stretchers  
Thread Dressers, Etc.

*Complete parts and service  
on all items listed here.  
Write for information.*



**COLLINS BROTHERS Machine Co.**

647 ROOSEVELT AVE., PAWTUCKET, R. I.

Southern: Karl H. Inderfurth, 1816 Liberty Life Bldg., Charlotte 7, N. C.

Western: Albert Breen, 80 East Jackson Blvd., Chicago 4, Ill.

Canadian: Ian Haldane, London, Ontario

## MILL NEWS

auxiliary machinery, will be installed at once and that the company will add the printing of draperies, dress goods and some men's goods to the Charleston operation, which was begun three years ago. Mr. Emerson, who has been with the company since 1925, said there is a possibility that Charleston some day may be the largest plant of the company, which also has a branch in Los Angeles. He said a minimum of six printing machines are contemplated in the Charleston plant, but that he could not say at present just what additional capital investment would be involved, or how many additional workers would be involved. At present 150 workers are employed in the Charleston plant.

**SALAMANCA, N. Y.** — Sheble & Wood Yarn Corp., here, is reportedly seeking a Southern location for transfer of its plant, according to a trade rumor. E. F. Quittner, president of the firm, reportedly has been in the coastal South Carolina region in connection with the site search, it is said.

**STARR, S. C.** — It took exactly 75 days from ground-breaking to completion of Starr Mills' new synthetic weaving plant here. Ground for the mill was broken last November 11. On January 25, the company began moving in machinery. The mill now is in full production. The 268 by 151-foot steel frame structure, with appendages, encompasses 40,500 square feet. Walls are of jumbo brick and the roof is precast concrete.

The plant is air-conditioned throughout. Mill machinery includes 192 looms, six drawing frames, two twistors, beamer, a 640 end creel and slasher. Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala., was general contractor for the project.

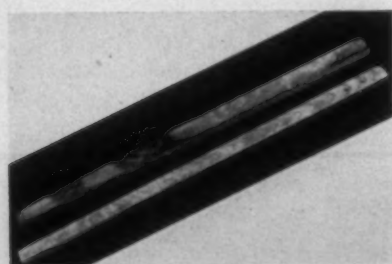
**SEVIERVILLE, TENN.** — A \$2 million cotton spinning, dyeing and weaving plant to substantially increase production for Cherokee Textile Mills, Knoxville, Tenn., is under construction here. Ground was broken for the new plant February 22. Daniel Construction Co., Greenville, S. C., general contractor, reports that the building will be completed sometime in August. The plant will provide 220,000 square feet of floor area. Over-all dimensions are 343 by 598 feet. The building will be totally enclosed and air-conditioned throughout. Except for the dyehouse section which includes a basement, it will be a single-floor structure. The dyehouse basement will house the boiler room, dyehouse pumps, water softening facilities, and chemical mixing equipment. Jumbo brick will be used for the walls of the steel-frame structure. There will be a precast concrete roof deck. James T. Mitchell of Knoxville, Tenn., is architect for the plant.

**LIBERTY, N. C.** — The Liberty plants of Woodside Mills are currently undergoing a large expansion program expected to cost more than a half-million dollars. Full production from the new equipment is expected to be reached by early Fall, according to a company spokesman. The expansion program is the result of the addition of combed cotton goods production which was started at Liberty plants in 1954 when 224 looms began manufacturing combed chambrays and a dye plant was constructed for the combed yarn. The program includes the installation of 200 46-inch looms. A new floor will be constructed in the lower weaving department of the No. 1 mill and new looms will be installed there. Approximately 275 older 40-inch looms will be removed and salvaged, it is reported. Thirty 40-inch looms also will be installed in the present combed weaving room. Expansion of the weaving production will necessitate increasing the preparatory equipment and floor space. An additional 100 by 100 square feet of space will be added to the No. 2 mill on the ground floor. Between 18 and 20 additional cards will be installed and the combing equipment will be doubled. In the dye plant, a four-beam kier dye unit will be installed in addition to the three-beam and one-beam kiers now in use there. A 40 by 50-foot addition also will be constructed at the No. 1 plant between the two mills for beam and warp storage, filling conditioning and quill stripping.

**RICHMOND HILL, GA.** — Stockholders of the Verney Corp. will vote in a few days on the proposed financing to establish a weaving unit of the company here. According to unofficial sources, Verney plans to sell its weaving plant in Manchester, N. H., and re-establish operations here. Interests owned by Gilbert Verney, president of the company, acquired property here in May 1953, for future possible location.

# Serving The Textile Industry

## U S Bobbin & Shuttle Named Agent For Adams Plastics Co.



Pakkawood compreg picker sticks, manufactured by Adams Plastics Co. Inc., are now being sold by U S Bobbin & Shuttle.

The Adams Plastics Co. Inc., Holyoke, Mass., announces the appointment of the U S Bobbin & Shuttle Co. as its sole selling agent for Pakkawood picker sticks and other loom accessories. Adams Plastics Co. is an old established producer of compressed impregnated woods used for cutlery and utensil handles. Although picker sticks have been manufactured by Adams for a selected list of mill clients over a period of seven

years, a recent decision to expand this phase of its business caused the company to select U S Bobbin & Shuttle Co. of Lawrence, Mass. and Greenville, S. C. as its agent.

## Akron Spool Names Agents

Akron Spool and Mfg. Co., Cuyahoga Falls, Ohio, announces the appointment of two sales agencies for representation in the Southern states. R. E. L. Holt Jr. and Associates Inc., Greensboro, N. C., will represent Akron Spool in Virginia, Kentucky, North and South Carolina. Belton C. Plowden Co., Griffin, Ga., will serve Tennessee, Georgia and Alabama. Other areas of the country will continue to be served from the home office.

## Vicara Moves To New Quarters

The fiber division of Virginia-Carolina Chemical Corp., producers of the Vicara fiber, has moved to larger quarters in the newly erected building at 99 Park Avenue, New York City. This is another step in the fiber division's expansion program recently inaugurated at the Taftville, Conn., plant.

According to John H. Karrh, manager of the fiber division, the Vicara showroom and all departments—executive, sales, retail promotion and fabric development—will be located on the 17th floor at 99 Park Avenue. The company formerly occupied offices at 500 Fifth Avenue.

## Holyoke Names Agent

Industrial Equipment Co., Charlotte, N. C., has been named Southern sales representative for Holyoke (Mass.) Machine Co. for its textile calender and embossing rolls. Industrial will cover Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, Virginia and West Virginia. Alexander F. Schenck of Industrial will be in charge of sales of the Holyoke products.

## Fisher To Rebuild Plant

The plant of Fisher Mfg. Co., Hartwell, Ga., builders of textile trucks and materials handling equipment, was largely destroyed by fire on June 1. The plant was struck by lightning during an electrical storm. J. Glenn Fisher, partner and general manager,



has since announced that his firm will rebuild immediately and that he expects to resume production early in July. Plans are now being prepared for replacement of the burned structure, and a contract will be awarded shortly for the new building. The loss was covered by insurance, according to Mr. Fisher. The firm was founded in 1947 and has representatives in Greenville, S. C., Greensboro, N. C., and Columbus, Ga. The firm manufactures a complete line of functional trucks for materials handling in textile mills, and offers engineering services to mills in connection with its services.

### Line Of Tints For Charlab

Charlotte Chemical Laboratories Inc. has obtained a license from Dr. Edward A. Murray, chemical engineer and textile consultant of Anderson, S. C., to manufacture and sell a new line of tinting colors for natural and synthetic fibers. The new tints, for which patents have been applied, are said to be more generally fugitive, even after steaming, than those which have been available to the industry in the past. These colors, known as Rinsefree tints, are supplied as concentrated water solutions ready for dilution and application to the stock by conventional methods. No special preparation or application techniques are required.

### Model 66 To Be Made In U. S.

Foster Machine Co., Westfield, Mass., has announced that its new Foster-Muschamp Model 66 automatic filling winder will be manufactured in Westfield and not in Ashton-under-Lynne, England. Model 66 is the first model Foster-Muschamp (as distinguished from Foster models) to be designed and developed in this country, the company points out, and manufacturing it in this country will make a considerable difference in deliveries.

### New Textile Paper Plant

Textile Paper Products Inc., Cedartown, Ga., has announced that work has already begun on a new \$80,000 paper products manufacturing plant in Crossett, Ark. The new plant, scheduled for completion in September 1954, will contain 11,000 square feet of floor space designed for future expansion, and will produce paper tubes, cores and other paperboard products used by the textile industry. Robert T. Smith Jr., New Orleans, La., has been named to manage the plant.

### National Starch Scholarships

National Starch Products Inc. has announced that final plans have been completed for its aid-to-education program. The company has made arrangements to establish undergraduate scholarships of \$2,000 each at Columbia University, Case Institute of Technology, The University of Nebraska, North Carolina State College, Syracuse University (N. Y. State School of Forestry) and Rutgers University. To aid the privately-financed schools in defraying the administration of each scholarship, the company is also awarding an additional sum annually to the chemistry department of the schools

concerned. While these scholarships are to be granted in the general fields of chemistry and chemical engineering, the applicant must have need for financial assistance and be outstanding scholastically and character-wise. The company also points out that the recipients of the scholarship are under no obligation as to future employment with National. In an endeavor to attract more students to the chemical field, National plans, as part of its aid-to-education program, to establish additional grants, which will be awarded to meritorious graduates of local schools where National Starch plants are located.

### Southern Office For Perkins

B. F. Perkins & Son Inc., Holyoke, Mass., has announced that it will open its first Southern sales office in Charlotte, N. C., sometime next month. Benjamin C. Trotter will head the new office.

### Gaston Chemicals' New Plant

Gaston Chemicals Inc. has announced that construction has begun on a new 6,000 square foot plant, office building and laboratory at Lowell, N. C. According to a company spokesman, the plant will be constructed to provide for production of plastics, dyestuffs and specialty chemicals. Initial production, however, will be limited to plastics. Approximately \$200,000 will be invested by the firm in the production of plastics for special purposes, it is said. Dr. A. C. Baggenstoss, president and treasurer of Gaston Chemicals, will direct plant operation. The plant will employ about 15 persons at the start of its operation.

### Mt. Hope System On Exhibit

Mount Hope Machinery Co., Taunton, Mass., is currently exhibiting a complete system of materials handling at its show room in Taunton. In operation are such devices as the Mount Hope continuous roll

feed, Model S selvage switch for tenter feeders, new open width tension devices, new vari-bow expander, precision guiders, free-wheeling expanders in all sizes, controlled expansion guides, bowed and skewed weft straighteners and new selvage uncurlers. The demonstration is being maintained as a continuous operation for study as a result of great interest in the Mount Hope system shown by visitors to the company's booths at the recent American Textile Machinery Exhibition at Atlantic City, N. J.

### New Atlanta Office For Draper

The Draper Corp. has announced that it will erect a modern office and warehouse building in Atlanta, Ga., soon to house the company's activities in that area. According to the company, the new structure will have 44,000 square feet of floor space, with 38,000 feet allocated for warehouse space. The company's present Atlanta office employs some 60 persons. Draper also has offices and distribution warehouses in Greensboro, N. C., and Spartanburg, S. C.

### Celanese Holds Open House

The Celanese Corp. of America recently held an open house at its new textile division headquarters in Charlotte, N. C. The recently completed \$5,500,000 structure was built to house the administrative functions of the company's textile division which previously operated out of New York City. During a recent visit to the new building, Harold H. Blancke, president of the company, added some credence to the rumor that the company is also considering Charlotte as a future site for a laboratory. Celanese now operates laboratories in New Jersey and Texas.

The Freeman Electric Co., Tuscaloosa, Ala., has been named a certified shop for Allis-Chalmers motors, controls and transformers in ten Alabama counties.



**SOUTHEASTERN TEXTILE INSTRUMENT OFFICE**—A new facility to better serve Brush Electronics Co. customers is the recent acquisition of new station wagons for the Brush Southeastern textile instrument sales and service office, located at 91 Cleveland Street, Greenville, S. C. With the use of these station wagons, Brush company-trained field service engineers can give its immediate area customers 24-hour service on routine repairs. Loaner units are carried by these servicemen, for customers whose instruments require major repairs.

Brush Electronics Co. of Cleveland, Ohio, manufacturer of industrial and research instruments, recently announced the establishment of this Southeastern office. This new office is under the direction of D. M. Gaskill, supervisor, textile section. Textile instruments sold and serviced by this office include the uniformity analyzer, automatic evaluator, and two new instruments, the tension analyzer and imperfection counter. A complete stock of spare parts and operating supplies is available at the Southeastern textile instrument office.



## A.A.T.C.C. Symposium

A VARIETY of subjects on research advances in the field fell under discussion at the recent all-day symposium of the American Association of Textile Chemists and Colorists at the Hotel Statler in New York City. Topics ranging from dyeing to dry cleaning were considered during the day by various discussion groups. One of the highlights of the meeting was the luncheon address by J. Gordon Dakins, executive vice-president of the National Retail Dry Goods Association, who urged the formation of an industry-wide committee to work with retail representatives in a joint effort to advance mutual interests of textiles and stores. The objective of such a committee, he pointed out, would be to find the solution to problems common to both the industry and retail trade. He expressed the belief that many of the leading retailers of the country would welcome the opportunity to jointly create a program that would lend to an understanding of common problems.

Mr. Dakins also urged a program of telling the consumer and buyer how to handle textile articles in use. "Let's carry the knowledge of what a product can do, from mills through all the complicated channels of distribution and production of garments, to retailers and on to the satisfied customer. Let's stop dissatisfaction of the consumer from excessive shrinkages, loss of colors, or permanency of finish, and let's concentrate on how to satisfy the vast public with the craving for new and various styles." He blamed a large part of current textile difficulties on the practice of all groups to cut costs at the risk of impairing quality. A group movement toward performance standards, he noted, would be well worth considering.

George S. Buck, National Cotton Council, warned the group at the general session of the symposium to guard against the prospects of having textile standards adopted by federal or state agencies as part of legislation or rules and regulations and used by those who do not understand their limitations. Mr. Buck applauded the role played by

the A.A.T.C.C. in drawing up the standards of the flammability act, but noted that the A.A.T.C.C. "cannot modify or improve its standards without getting the approval of Congress. An A.A.T.C.C. standard for flammability of clothing textiles which differed from that in the Flammable Fabrics Act would be of absolutely no use to anyone." For this reason, said Mr. Buck, the industry must exercise great care in drawing up good standards with sound principles.

Thomas G. Hawley, United Merchant Laboratories Inc., also addressing the general session, pointed out the need for simplified tests for converters, cutters and stores. Finishing plants, he noted, need to know in a few minutes after a run is finished whether or not the fabric is satisfactory. Mr. Hawley defined simplified tests as speedy, simple procedures that largely eliminate the human factor. He added that such tests are now being studied by the A.A.T.C.C.

In the session on dyeing, Walter H. Hindle, associate director of research of the Chemstrand Corp., stated that one of the major objectives of research should be a return to simplicity in dyeing methods. In reviewing dyeing aspects of the newer synthetics, Mr. Hindle pointed out that the dyers role over the past few years has been one of increasing complexity. Now that newer fibers are meeting with general acceptance and are fast becoming established in the trade, we must aim toward a goal of simplicity in dyeing processes, he said.

Other subjects discussed included the mis-use of labels on goods. Henry F. Herrmann, General Dyestuff Corp., urged that a way be found to clear up the confusion caused by misleading claims in the form of trade names suggestive of quality far in excess of reality. Everett C. Atwell, director of technical services, Burlington Mills Corp., suggested that test results on products should be accompanied by interpretative data in non-technical language that could be understood by the layman.

Kenneth H. Barnard, American Cyanamid Co., reported that a tentative standard for testing anti-static treatments has been accepted by the anti-static finishes committee of the association and will be published in the next issue of the A.A.T.C.C. yearbook.

Albert E. Johnson, National Institute of Drycleaning, reported that the final test procedures on drycleaning would probably include grades of fastness or durability. The procedures will be adopted by the association when they are completed.

Dr. A. F. Tesi, Celanese Corp. of America, spoke on the development of solution-dyed yarns and the introduction of solvent techniques. He pointed out that the specific pigments selected are a very important factor in the fastness performance of solution-dyed acetates.

O. M. Newman, North Carolina Finishing Co., Salisbury, N. C., spoke on "Trade-Named Finishes and What They Stand For" at the finishing session of the symposium. Harry Moore, Fair Lawn (N. J.) Finishing Co., spoke on the elimination of pilling in fabrics made of Dacron polyester fiber. C. W. Bendigo, American Cyanamid Co., spoke on "A.A.T.C.C. Research—Key to Quality." Leslie L. Walmsley of the textile research department of the American Viscose Corp., spoke on filament yarn and dyeing methods.

More than 600 persons attended the symposium, which was presided over by J. Robert Bonnar, General Dyestuff Corp., national president of the A.A.T.C.C.



"He's decided to write 'Memoirs of a Corporation President' as he goes along up the ladder."

## Man-Made Textiles Congress

**T**HE first International Congress of Man-Made Textiles was held in Paris, France, May 31-June 3. Many visitors from countries all over the world heard more than 30 papers during the four-day meet. Developments in man-made fibers, their contribution to many phases of industry from high fashion to military activities and a variety of technical subjects were reviewed in the discussion periods of the congress that were held at the Centre Marcelin-Berthelot.

One of the featured speakers at the session was J. B. Goldberg, textile consultant of New York City, who told the congress that rayon and acetate have lost ground to other fibers, including cotton, in the American market because of lack of originality at the fabric level. Summing up his paper, entitled "American Developments in Rayon and Acetate Fabrics," Mr. Goldberg stated: "A few years ago the American Standards Association, in co-operation with the National Retail Dry Goods Association, technical organizations and industry and consumer representatives, prepared a manual of standard minimum requirements for rayon and acetate fabrics based on performance requirements for specific end-uses. While these standards have not yet been generally adopted by mills, converters, garment manufacturers and retailers, it is agreed that they are good in principle and in time they will probably be utilized as a basis for the upholding and improvement of the quality of fabrics made of rayon and acetate."

"It is evident," he continued, "that the success of rayon and acetate in retaining favor in old fabrics and in finding acceptance in new outlets depends on a unified effort to keep manufacturing costs down, to improve fiber properties through constant research, and by encouraging designers and stylists to create new fashions in fabrics."

"While America may be one of the leaders in large-scale production and the exploitation of new ideas for profit, we still regard France as the fashion center of the world, and we appeal to the style-leaders to give due recognition to the man-made fiber that had its birthplace in France—rayon, and its beautiful companion, acetate."

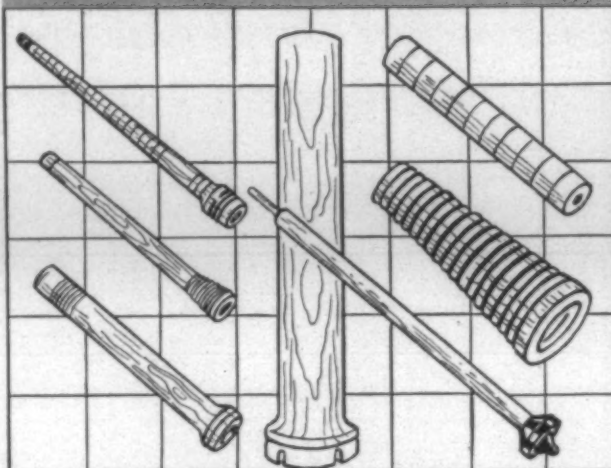
Another American speaker, J. Spencer Love, chairman of the board of Burlington Mills Corp., told the delegates that the man-made fiber and fabric industry, more than any other segment of the textile industry, has the greatest opportunity of substantially increasing its markets and at the same time of contributing in a very real way to the raising of clothing and living standards throughout the world.

Speaking at the closing session of the meeting, Mr. Love pointed out that development and expansion of the new non-cellulosic fibers constantly opens new opportunities for better fabrics and values at price levels within the reach of even the most modest pocketbook.

He declared, however, that we can enormously accelerate our progress by establishing strong industry-wide councils within individual nations to tell "the progress and accomplishments of the man-made fiber industry as a whole to the public, the average fabric consumer."

He described the need of a "man-made fiber council, composed of and strongly financed by the entire industry,"

## MONTICELLO BOBBINS "Engineered For Service"



FROM CARD ROOM BOBBINS TO OUR LATEST  
PATENTED PLASTIC BASE SKEWER  
"ENGINEERED FOR SERVICE"  
WE CAN EXTEND THE LENGTH OF YOUR  
BOBBINS GIVING YOU A  
COMPLETE NEW TOP BEARING

## MONTICELLO BOBBIN COMPANY MONTICELLO, GEORGIA

The ONLY manufacturer of Card Room Bobbins in the South

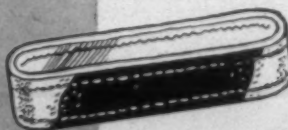
## REDUCE COSTS AND INCREASE PRODUCTION WITH OUR ABC HAIRON CHECK STRAPS

### REGULAR



ABC HAIRON CHECK STRAPS last longer by actual Mill Tests. As much as 2 to 4 times longer than competitive straps.

### ENDLESS



ABCO ENDLESS CHECK STRAPS. Two-ply thick, cemented and stitched for long, dependable service and less stretch.

### CURVED



ABC HAIRON CURVED CHECK STRAPS. Cut from the same foreign Hairon Leather as our regular ABC HAIRON CHECK STRAPS.

**ATLANTA BELTING COMPANY**  
508-510 WHITEHALL ST., S.W., ATLANTA, GEORGIA



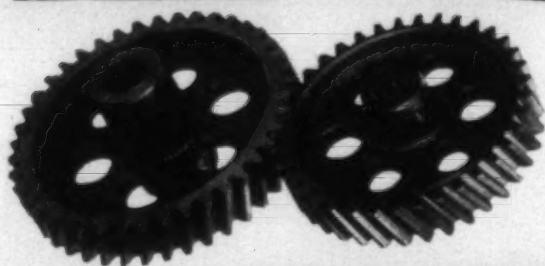
VEE CORD DRIVES

ROLLER CHAIN DRIVES

*Custom Cut*  
**GEARS**

SILENT CHAIN DRIVES

SPROCKETS SHEAVES



Write For Stock Sheet on Textile Gears



**FERGUSON  
GEAR COMPANY**

GASTONIA, NORTH CAROLINA

Phone 4-2626

**BRYANT  
SUPPLY CO., INC.**

Distributors of  
Electrical & Industrial  
Equipment



TELEPHONE 5-3486

GASTONIA, N. C.

TELEPHONE 5-0371 WORKS N. MARIETTA ST.

**BARKLEY  
MACHINE WORKS**  
MANUFACTURERS OF  
TEXTILE MACHINERY  
PARTS

GASTONIA,

NORTH CAROLINA

as imperative and the greatest collective challenge facing all segments of the U. S. industry today.

Mr. Love suggested four additional steps to help insure future progress. They were:

(1) A more comprehensive and united approach to basic research and improvement in manufacturing and processing machinery, better dyestuffs and improved dyeing and finishing methods. Cellulosic base yarns must also be improved.

(2) Leading designers and couturiers must be further encouraged in their work with fabrics and garments of man-made fibers.

(3) Establishment of standards in various fields to curb dilutions and cheap substitutes. These standards should be described in language and methods the consumer can understand.

(4) Educational programs must be undertaken with store executives and personnel, as well as the consumer, so that true values and uses of the many yarns and fibers can be better understood and appreciated.

Mr. Love told the more than 3,000 persons present, representing 30 countries, that the expansion trend in the use of man-made fibers in the U. S. has been steady and has shown no appreciable abatement in recent years, although, he said, it is presently running behind productive capacity.

According to Mr. Love, total production of all fibers in the U. S. has expanded from 380 million pounds in 1939 to approximately one billion, five hundred million pounds in 1953. This is approximately 30 per cent of world capacity.

"While American consumption of all types of textile fibers has increased about 50 per cent since 1940," he said, "the per cent of this total which is man-made has increased from less than ten in 1940 to 23 per cent last year, whereas cotton has declined from 81 per cent in 1940 to approximately 69 per cent of the total last year."

Burlington's present selling level was described by Mr. Love as being approximately one and a quarter million dollars' worth of textile products each business day with the major portion being from man-made fibers, including hosiery, knitgoods and ribbons as well as broad woven fabrics for a wide diversity of uses. Burlington also has substantial cotton and wool operations.

The strong tendency in all American industry, including chemicals and textiles, to allot more and more funds to research and development was noted by Mr. Love, who declared that "research and development has resulted in better and better serviceability and values offered to the public, bringing gradually the very best to be had within reach of even the most modest pocketbooks."

On the question of industry-wide councils, Mr. Love declared that "it is high time that we sidestep petty differences and minor details to get down to cases on the selling job we have to do as an industry if we are to be worthy of the great tools for fabrics progress that have been placed in our hands." He stressed that these "ends must never be accomplished by decrying the virtues of the natural fibers or of any other industry. We need never stoop to such tactics. We need only to tell our own fabulous stories and the united purpose to do this in a simplified manner."

J. A. Woodruff of the dyeing and finishing division, textile research department, American Viscose Corp., presented a paper entitled "A Study of Shrinkage Control and Dura-



bility of Finish on Rayon Fabrics With Emphasis on the Avcoset Program." He noted that "there are available in the U. S. today, several chemical formulations for treating rayon in such a manner that proper mechanical finishing will result in the fabrics having good shrinkage control. Such woven or knit fabrics can compete with equal shrinkage control to that of cotton," he said. "Where such shrinkage is fortified with the other features of durability tremendous improvement in consumer performance can be gained. The Avcoset program represents an industry-wide use of one of these chemical treatments for shrinkage control with the strong additional feature of tested minimum requirements of durability accompanied by a labeling system to provide the consumer with known high quality merchandise."

### Fiber Society Schedules 1955 Meetings

The Fiber Society Inc. has announced the dates for its Spring and Fall meetings for 1955. According to John T. Wigington, secretary of the society, the Spring meeting will be held May 4-5 at the Alabama Polytechnic Institute, School of Textile Technology, Auburn, Ala. The Fall meeting is scheduled for Sept. 8-9 at Massachusetts Institute of Technology, Cambridge, Mass.

### Library Presented To N. C. State

A new \$25,000 library was formally presented to the School of Textiles at N. C. State College recently by the Burlington Mills Foundation. In exercises held in the Nelson Textile Building at the college, the modern, air-conditioned library which contains over 4,500 volumes was dedicated to the memory of four alumni of the college's School of Textiles who left positions with Burlington Mills for military service in World War II and lost their lives in line of duty. Alumni in whose memory the library was dedicated were Albert R. Lambert, Greensboro, N. C.; Peter Ihrle Jr., Rock Hill, S. C.; Wallace W. Riddick Jr., Demopolis, Ala.; and Thomas C. Leake III, Rockingham, N. C. Riddick was a grandson of the late Dr. Wallace Carl Riddick of Raleigh, fourth president of N. C. State College, who headed the institution from 1916 to 1923 and was later the college's first dean of engineering. A bronze memorial tablet in honor of the four alumni is permanently installed in the new library.

J. C. Cowan Jr., of Greensboro, president of the Burlington Mills Corp., made the formal presentation of the library to the college, and Dr. Carey H. Bostian, chancellor of State College, accepted the library on behalf of the School of Textiles and the college. Dean Malcolm E. Campbell of the college's school of textiles presided over the exercises. Families of the late alumni for whom the library was dedicated attended the ceremonies and were later special guests at a luncheon in the college dining hall.

The Nelson Textile Building, honoring Dr. Thomas Nelson, dean emeritus of N. C. State College School of Textiles, was dedicated on May 21 in conjunction with the North Carolina Textile Foundation at Raleigh, N. C. Dr. Nelson died in March 1953. A number of interested alumni attempted in 1938, when the building was first completed, to name it after Dr. Nelson, but a government regulation prohibited the naming of a building erected with Works Progress Administration funds after a living person.



During 81 years, DIAMOND FINISH rings have been so outstanding that we have become the world's largest ring plant. Constant improvements have been made and will continue to be made to assure our customers of always having the BEST that modern ring-making can produce.

**WHITINSVILLE (MASS.)**  
**SPINNING**  **RING CO.**  
*Makers of Spinning and Twister Rings since 1873*

Southern Representative: W. K. SHIRLEY, 25 Oak St., Belmont, N. C.

### PEGGED and GLUED BRISTLES Stay Put!

**LONGER LIFE**—Spiral card brushes, refilled the Gastonia way, last from 10 to 15 years, compared with 2 or 3 years when staples are used—for STAPLES WILL NOT STAY PUT IN SOFT WOOD. Gastonia first dips the bristles and fiber in glue, then they are permanently pegged in.

**BETTER FINISH**—To prevent lint from collecting on rolls, Gastonia paints them with high-grade bobbin enamel, which dries to a hard, glossy finish. Brushes can be refilled and returned in two days. Freight is paid one way.

J. T. HARRELL, PRES. AND MGR.

**GASTONIA BRUSH COMPANY**  
**Phone 5-2422** **GASTONIA, N. C.**

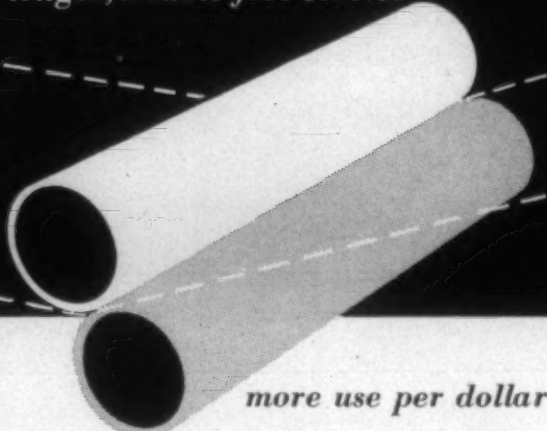
### Package Dyeing and Bleaching

ALL TYPE COLORS  
 ON COTTON YARNS

**PIEDMONT PROCESSING CO., Belmont, N. C.**  
 Telephone 352 and 353

## MANHATTAN RUBBER COVERED ROLLS

*longer, trouble-free service*



*more use per dollar*

Manhattan Rubber Covered Rolls assure better production and last longer . . . won't harden, crack or corrugate . . . maintain proper density . . . permanently.

Manhattan produces an inseparable bond of rubber to metal . . . You reduce loss due to downtime . . . and get "More Use Per Dollar" under all conditions.

Discuss your requirements with the R/M roll covering specialist . . .

RUBBER LINED TANKS, PIPE AND FITTINGS  
RUBBER AND ASBESTOS PRODUCTS



**RAYBESTOS-MANHATTAN, INC.**

Textile Roll Covering Plants at  
N. CHARLESTON, S. C. PASSAIC, N. J.

## FEWER NEPS—CLEANER CARD SLIVER

Are your cards 20 years old or older? We specialize in re-circling card flexible bends and sharpening mote knives.

- 1—Fewer Cylinder Fillets Faced
- 2—Less Top Flat Clothing Faced

Results in better Flat Setting, Less Neps and Cleaner Yarn.

*For further information contact*

**D & C MACHINE CO.**

2215 Central Ave.

Charlotte, N. C.

Phone No. 5-3258

**BIBERSTEIN, BOWLES & MEACHAM, INC.**

TEXTILE ARCHITECTS & ENGINEERS

CHARLOTTE 4, N. C.

• Phone 2-5111

## N. C. Textile Foundation Holds Annual Meeting

A report made during the recent annual meeting of the North Carolina Textile Foundation at N. C. State College showed that the foundation has had a total income of \$1,431,226.10 since its founding in December 1942. Foundation officials said the organization is currently investing approximately \$71,000 annually in support of the educational and research programs of the college's school of textiles.

William A. Newell, co-ordinator of textile research for the school of textiles, reported to the meeting that the school's expanding research program is operating on an annual budget of \$250,000. He reported that scientists in the school are now working on a project to determine the effects of nuclear radiation on fibers. Results obtained thus far indicate, he said, that atomic radiation gives promise of strengthening fibers, increasing their heat resistance and improving them in other ways. Mr. Newell also announced that the research staff is working on the evaluation of new synthetic fibers, has begun a project designed to reduce combing wastes, is seeking ways of increasing cotton card production and is engaged in bleaching experiments.

Dean Malcolm E. Campbell of the school of textiles reported on his recent visit to India, Pakistan and Japan as a member of a five-man team sponsored by the U. S. Department of Agriculture and the National Cotton Council of America. He noted that the Japanese textile industry will provide fierce competition in the world markets in coming years as a result of modernization, employee training and far-sighted management procedures. Mr. Campbell said that members of the mission were impressed with the interest of the Asiatic manufacturers in American cotton and predicted that the far Eastern countries would use a large volume of American cotton in the future.

W. J. Carter of Greensboro, N. C., vice-president of J. P. Stevens & Co., was re-elected president of the Foundation at the meeting. Directors re-elected included A. G. Myers, president of Textiles Inc., Gastonia, vice-president; W. H. Ruffin, president of Erwin Mills, Durham, treasurer; David Clark, TEXTILE BULLETIN, Charlotte, secretary; and Charles E. Baxter, Burlington Mills Corp., Greensboro, who was named chairman of the meeting and presided over the session.

## Davis & Furber Sponsors Wool Course

Thirty management-trainees of the textile industry will be ahead of their contemporaries from now on. These are the enrollees in the special two-week course in woolen manufacture now under way at Lowell Technological Institute, Lowell, Mass. The course is sponsored by Davis & Furber Machine Co., North Andover, Mass. The company has sponsored similar courses in 1949 and 1952. It pays the full tuition for each participant in the course. Enrollment this year consists of textile mill management trainees from many Southern states, New York State, New England and Canada. Participation by Southerners is noted as a result of stimulated interest in woolen manufacturing in that area, one-time dedicated only to cotton.

Russell L. Brown of Lowell Tech is director of the course. Assisting him are Royal White and Dr. Chapin Harris. Lecturers for the course include some of the top men in the textile industry. Among the subjects and lecturers are: woolen yarns—Royal White; raw stocks—Dr.



Chapin A. Harris; mechanical blending—John Senior, Proctor & Schwartz Inc.; wool oils and emulsions—Bertil A. Ryberg, Procter & Gamble Co.; card feeders—Sydney Harwood, Geo. S. Harwood & Son; vacuum stripping—Ernest Clark, Abington Textile Machinery Works; preventive maintenance—Richard Dorian, A. & M. Karageusian Inc.; quality control in yarn manufacture—Lawrence Ellis, M. T. Stevens & Sons Co.; the processing of synthetics on the woolen system—Robert A. Smith, American Viscose Corp.; the total effects of poor yarn manufacture—David Fox, M. T. Stevens & Sons Co.; productivity—Frederic A. Celler, S. Stroock & Co.; operating studies, time studies and work loads—Richard B. Mitchell, Barnes Textile Associates; and methods of emulsion application—Alex Brown.

Also a galaxy of speakers from Davis & Furber Machine Co.: modern developments and trends in woolen card design and operation—Arthur Reynolds and John Cantlin; newer developments on spinning frames—maintenance of frames for quality work—Louis Bussiere and John Kooistra; and minimizing of yarn manufacturing costs—James Mansfield. Field trips included in the course will take the group to Marland and Andover plants of M. T. Stevens & Sons Co.; Amoskeag-Lawrence Mills, Manchester, N. H.; Roxbury Carpet Co.; and to plants of Davis & Furber Machine Co.

#### Research Committee Elects Officers At T.R.I.

Richard D. Wells, director of research, Bates Mfg. Co., was recently elected chairman of the general research advisory committee of Textile Research Institute, Princeton, N. J. Dr. W. Hale Charch, director of pioneering research, textile fibers department, E. I. du Pont de Nemours & Co. Inc., was elected vice-chairman. According to a new operational plan recently put into effect, the chairman will serve for two years, at the end of which time the vice-chairman will automatically become chairman.

The subjects discussed at the meeting were based on presentations made by various staff members of the institute of various features of the program as outlined below:

##### I. Reports on Special Projects:

- A. Dyeing Research Project—H. J. White Jr.
- B. Cotton Research Project—Helmut Wakeham
- C. Wool Research Project—J. H. Menkart
- D. O.N.R. Project on Resilience—J. H. Dusenbury

- II. The Participating Fellowship Program—J. H. Dillon
- III. The General Research Program—J. H. Wakelin

#### Cotton Council Plans Oscar Johnston Memorial

Immediate construction of an Oscar Johnston memorial building at Memphis, Tenn., to serve as permanent headquarters for the National Cotton Council has been authorized by the membership and trustees of the Oscar Johnston Cotton Foundation. Long looked to by the leadership of the cotton industry as a means of paying tribute to the council's founder and first president, the building will be of Southern colonial architecture, combining red brick exterior with white columns and stone trim. It will be located on a 350-foot tree-studded lot facing North Parkway immediately east of Snowden school.

Under an agreement reached between the trustees and the board of directors of the council, the foundation will construct a building at a cost of approximately \$400,000,

## DRONSFIELD'S PATENT ATLAS BRAND EMERY FILLET



STOCKED BY  
THE PRINCIPAL MILL SUPPLY HOUSES  
AND CARD MAKERS



COMPLETE  
SECTION BEAM  
SERVICE

Beams rebuilt, balanced, refinished. All work guaranteed unconditionally. Also, used and rebuilt beams for sale.

**CRONLAND WARP ROLL CO., Inc.**  
Lincolnton, N. C.

*Manufacturers of Loom Beams, Comber Lap Pins, Cloth Rolls, Warp Rolls, Card Stripper Rolls.*

## Charlab FUGITIVE TINTS

WATER TYPE — Does Not Overwet Stock  
OIL TYPE — Conditions and Identifies;  
Reduces Fly

• • •

Write or Phone

**Charlotte Chemical Laboratories, Inc.**  
Charlotte, N. C.



# M-B "AMOSKEAG" PNEUMATIC ROLL PICKER



**MODEL A-VT-A  
20,000 R.P.M.**

This is NOT a grinder, but the original pneumatic tool especially designed for the SPECIFIC Purpose of

## REMOVING LINT and FLY

from the top rolls and other parts of the drafting elements on  
**SPINNING FRAMES also ROVING FRAMES**

Spindle design permits using PICK (which gathers the fly and lint), 3/16" diameter by 2" long when used on Spinning Frames and 3/16" diameter by 7" long when used on Roving Frames. Exhaust air directed back of roll picker to prevent fly and lint from being blown into yarn when spinning by air deflector. Special grease-sealed bearings. No lubrication required. Weight only 14 oz.

WILSON F. HURLEY, P. O. Box 1445, Greenville, So. Car.  
Virginia and South Carolina

J. W. DAVIS, P. O. Box 745, Columbus, Ga.  
Georgia, Alabama, Mississippi, Louisiana

CHARLOTTE SUPPLY CO., Charlotte 1, No. Car.  
North Carolina Representative

GEO. M. HAND, c/o Matthews Equipment Co., 509 No. 25th St.,  
Reading, Pa. N. Y., Pa., Maryland and New Jersey Representative

R. D. HUGHES SALES CO., 1813 Main St., Dallas 1, Texas  
Texas, Oklahoma and Arkansas

MATTHEWS EQUIPMENT CO., 98A Broadway, Providence 3 R. I.  
New England Representatives

**M-B PRODUCTS**  
46 Victor Ave.  
DETROIT 3, MICHIGAN

## J. E. SIRRINE CO. GREENVILLE • SOUTH CAROLINA

ESTABLISHED 1904

TEXTILE MILLS • RAYON PLANTS • KNITTING MILLS • DYE HOUSES  
BLEACHERIES • STEAM UTILIZATION • STEAM POWER PLANTS  
WATER • WASTE DISPOSAL • APPRAISALS • PLANS • REPORTS

### SCOTT TESTERS, INC.

Main Office: 89 Blackstone St., Providence 5, R. I.

Southeastern Sales Representative:

JOHN KLINCK, 304 West Forest Ave., North Augusta, S. C.

Southern Service:

**SCOTT TESTERS (SOUTHERN), INC.**

216 Reidville Road  
Spartanburg, S. C.

and will lease it to the council. Plans call for the contract to be awarded soon and for occupancy prior to July 1, 1955. The council, central agency of the six branches of the raw cotton industry, is presently located on two floors of the Empire Building and one floor of Goodwyn Institute, with branch offices in New York, Washington and Charlotte, N. C.

The 36,000-foot Oscar Johnston building will house two of the council's four program divisions, sales promotion and production and marketing, together with the office of the executive vice-president, field service department, market research, public relations, and accounting sections. The research and foreign trade divisions will continue to make their headquarters in Washington; a major portion of the council's advertising activities will continue to be conducted by the New York office. Responsibility for carrying out the building program was assigned to a committee composed of Harold A. Young of Little Rock, Ark., chairman of the foundation trustees; A. L. Durand of Hobart, Okla., president; W. T. Wynn of Greenville, Miss., treasurer; and Wm. Rhea Blake of Memphis, the foundation corporate secretary. Anker F. Hansen is architect.

In other major actions the council board instructed the directors of its staff divisions to prepare comprehensive proposals for the expansion of program activities looking to the increased consumption of cotton and cottonseed products in both domestic and foreign markets. The proposals are to be submitted to a meeting of the board in Memphis on Sept. 16-17, and thereafter to the annual convention of the council next January.

The board heard informal reports from two members of the recent foreign agricultural missions appointed by President Eisenhower to study prospects for expansion of international trade in agricultural commodities. They were Wm. Rhea Blake, the council's executive vice-president, who was a member of the European mission; and Robert R. Coker, council board member from Hartsville, S. C., who was a member of the South American mission. Dean Malcolm Campbell of the textile school at North Carolina State College reported on activities of a Far Eastern technical mission conducted jointly by the council and the U. S. Department of Agriculture. Houston, Tex., was selected as the 1955 convention city, and dates set for Jan. 31-Feb. 1. The 1956 convention was scheduled for Biloxi, Miss., on Jan. 30-31. Memorial resolutions were adopted paying tribute to Ward Delaney of Memphis and Charlottesville, Va., executive secretary of the Oscar Johnston Cotton Foundation; George A. Simmons of Lubbock, Tex., a council delegate since 1944 and a member of its board for eight years; B. G. West of Blytheville, Ark., a council delegate since 1939; and R. E. Short of Brinkley, Ark., member of the council's committee on organization in 1938 and a delegate for 15 years thereafter.

### Carolinas A.S.Q.C. Schedules Fall Meeting

The Carolinas Section of the American Society for Quality Control, successor organization to the Textile Quality Control Association, will hold its Fall meeting at the School of Textiles, North Carolina State College, Raleigh, N. C., on Oct. 1, 1954. Program details will be announced later. Newly-elected officers of this organization are J. P. Elting, Kendall Mills, Paw Creek, N. C., chairman; G. Dent Mangum Jr., School of Textiles, North Carolina State College, Raleigh, vice-chairman; Howard Loveless,

School of Textiles, Clemson (S. C.) College, secretary; and H. Frank Hunsucker Jr., Highland Cotton Mills, High Point, N. C., treasurer.

### F.T.C. Makes Few Changes In Flammables Act

The Federal Trade Commission announced May 27 that it could neither postpone the effective date of the Flammable Fabrics Act nor keep the act from applying to fabrics now in stock. Both requests had been put before the commission by some industries, in the hopes that they could better prepare themselves for the legislation. Enforcement of the act, which bans highly flammable fabrics from shipment in interstate commerce, will require the testing of about 10,000 fabrics used in this country, it is estimated.

The commission also declined to make the giving of guarantees mandatory on the basis that the legislation did not require such guarantees. Manufacturers who meet the test standards of the act may issue a guarantee to the purchaser and it is expected that most manufacturers will do so. Under the guaranty system, the originator's guarantee may be used in turn as a basis for further guarantees in the chain of distribution.

Edward F. Howrey, chairman of the commission, warned the public not to put too much fire-protection faith in the new law because "the act merely forbids the sales of those fabrics which are especially hazardous. Fabrics of normal flammability can still result in casualties if the wearer is careless with fire or sparks."

Despite a number of protests since the standards of the act were first announced, few of the rules have been modified. One such modification was made on the rule governing bridal veils. As originally drafted, the rules provided that bridal veils treated with a fire-retardant finish would have to carry a label saying they would become dangerously flammable when washed. The modified rules provide that the label must say that the fabric has been treated with a fire-retardant finish that will be removed if washed.

Another modification on millinery fabrics provides that fabrics less than six inches in width need be tested only in a length-wise direction.

Fabrics will be tested by class, with only one test necessary for plain fabrics weighing two ounces or more a square yard. Continuing tests are required for plain fabrics of lesser weight. In raised-fiber fabrics, one test is considered sufficient for all protein fibers. Further tests are defined for all other types of fabrics.

### Wool Industry Adopts Unofficial Trademark

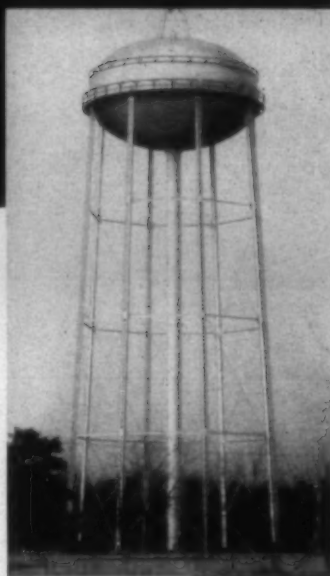
Important segments of the wool industry have launched a concerted campaign to develop the natural sales appeal of wool by making wool products more readily recognizable. Center of the campaign is a unique insignia, which is being used by every industry group from wool growers to retail merchants to focus consumer attention on wool. The insignia is used on wool products of all types, in retail store advertising and displays, and on letterheads and printed matter. Introduced last year, it has already become an unofficial trademark of the industry. The circular, seal-like insignia bears the legend "Wonder Fiber Wool, a marvel of nature perfected by man." Manufacturers of wool clothing placed more than one million hang-tags on garments last Fall. An additional printing of 300,000 hang-tags has now been completed, and orders for two million

### For Economical Maintenance

## COLE ELEVATED TANKS

• Design plays an important part in tank maintenance. Experienced engineers design Cole tanks for easy access and minimum maintenance costs, as well as for permanence, safety, and dependability. Send us your inquiries for tanks 5,000 to 2,000,000 gallons—stating capacity, height to bottom, and location.

Write for the latest Cole catalog—"TANK TALK"



Established 1854

**R. D. COLE**

NEWNAN, GEORGIA

ELEVATED TANKS • VESSELS • CYLINDERS  
TOWERS • BINS • STANDPIPES

**MFG. CO.**

### STRIP-O-MATIC CARD CLOTHING...

... runs virtually without stripping. Saves time, money, and labor. Produces better quality.

## Booth

CARD CLOTHING FOR EVERY NEED  
STRIP-O-MATIC AND CONVENTIONAL

BENJAMIN BOOTH COMPANY, ALLEGHENY AVE. & JANNEY ST., PHILA., PA.

**For  
REPAIRING  
or  
LINING**

**A  
PLASTIC  
LINING  
USED IN  
PLACE OF  
FIRE BRICK**

## LONGER LASTING BOILER FURNACES

"Boiler furnaces lined with CARECO last two to four times longer than those lined with fire brick. Write for quotation."

CAROLINA REFRACTORIES CO.  
Hartsville, S. C.



more are on hand. Because it is readily identified and displayed on the outside of a garment, the new insignia supplements the protection afforded the consumer by the Wool Products Labeling Act of 1939—a law requiring that all products containing wool bear a label listing fiber content.

With its immediate acceptance as a hang-tag, the new insignia has been quickly adopted as a "trademark" for wool by other industry groups. It is widely used by wool growers and growers' associations; prominently displayed and reproduced on printed matter by wool dealers and textile mills; featured in promotion campaigns by manufacturers, and employed in displays and local advertisements by retail stores.

### Jack Jordan Elected Piedmont A.A.T.C.C. Head

Herman J. (Jack) Jordan, Piedmont Processing Co., Belmont, N. C., was recently elected chairman of the Piedmont Section of the American Association of Textile Chemists & Colorists. He succeeds Henry A. Rutherford, head of the department of textile chemistry at the School of Textiles, N. C. State College. The results of the mail ballot were announced at the annual outing of the section held at Blowing Rock, N. C., June 11-12.

Other officers elected included Clarence Hooper of Burlington Mills, Burlington, N. C., vice-chairman; Warren E. Rixon of Carbide & Carbon Chemicals Co., Charlotte, N. C., secretary; and Clement O. Stevenson of Ciba Co., Charlotte, treasurer.

At the outing's golf meet, Gordon Eaves, Cloverdale Dye Works Inc., High Point, N. C., won top honors with a gross 75 on the par 71 Blowing Rock Golf Course. Playing without a handicap, Mr. Eaves emerged winner of a silver loving cup and a golf watch. R. K. Kampschulte, Celanese Corp. of America, New York City, carded a high gross

128 to win a croquet set and a high score of nine on No. 12 hole to win a sports shirt. R. Q. Ranson, Southern Dyestuff Corp., Charlotte, won a sport shirt for driving nearest the hole on No. 7. Joe McDowell, F. H. Ross & Co., Greensboro, N. C., and Bob Ward, Leaksville Woolen Mills Inc., Charlotte, shared putting honors with duplicate 33s on the nine-hole putting green at Mayview Manor.

In the women's flight, Mrs. Ira Hurd, East Greenwich, R. I., won low gross honors with an 85. Mrs. Reid Tull, Edgewood, R. I., was low net with 79. Other activities at the outing included a horseshoe tournament and a shuffleboard contest.

### American Viscose Expands College Program

Continuing to expand its interest in educational grants, American Viscose Corp. will include 29 institutions in its college relations program for the academic year 1954-55. This is an increase of seven over last year's list of colleges and universities receiving fellowships, scholarships and grants-in-aid. The funds available under the program for 1954-55 will approximate \$55,000.

Fifteen fellowships, given for graduate work, have been established in the fields of chemistry, accounting, organic chemistry, cellulose chemistry, forestry, pulp technology, and paper technology. Twenty-four scholarships, for undergraduates, are divided among chemistry, engineering, physics, textiles, accounting, chemical engineering, business administration, textile technology, and mechanical engineering.

American Viscose's college program is designed to encourage the study of science, engineering and business administration. Actual selection of recipients is left to the faculty of each institution and the individuals selected are under no obligation of any kind to the corporation. Lo-



AN AUTOMATIC QUILL MARKING DEVICE is the invention of Clint and Roy Waugh of the Mooresville (N. C.) Mills Inc. The device is in use at Mooresville on Abbott quillers. It is a combination of cams and levers that automatically lower one of the four chalk holders to the tops of the revolving quills. Safety devices are attached to prevent the fingers from descending in the event the head is off the quiller or the quills are empty. The Waugh brothers, who have a combined service record of more than 70 years with Mooresville Mills, also invented an automatic cleaner for the quillers. An eighth-inch rubber hose suspended above the quiller is whipped back and forth across the quills by regulated air pressure. The sweeping air pressure blows off all lint and dirt.



cated in 14 states and Canada, the following 29 institutions have been invited to take part in the program this year: Akron University, Allegheny College, Bucknell University, Carnegie Institute of Technology, Case Institute, Cornell University, Duke University, Georgia Institute of Technology, Indiana University, Jefferson Medical College, Lehigh University, McGill University, Michigan State College, New York State College of Forestry at Syracuse, N. Y., North Carolina State College, Northwestern University, Pennsylvania State University, Philadelphia Textile Institute, Princeton Textile Research Institute, Roanoke College, Swarthmore College, Texas State College for Women, University of Delaware, University of Maine, University of North Carolina, University of Pennsylvania, University of Rochester, Virginia Polytechnic Institute, and West Virginia University.

### Expansion Of Wool Is Promoted

A survey to determine the possibility of enlisting more wool-producing countries in the worldwide wool promotion program, expansion of the program into new countries and changes in the administration of the program were voted in Pretoria, South Africa, recently at a six-day conference of the Australian Wool Bureau, the New Zealand Wool Board and the South African Wool Board.

Members of the wool groups, who last met in 1937, expressed their full confidence in the future of wool and all-wool products, and voted to recommend to all wool-producing countries that the production of wool should be expanded to meet ever-increasing consumption.

Members also voted changes affecting control of The Wool Bureau Inc.—the organization which conducts the promotion, education and research program for wool in the United States. It was decided that the executive of the International Wool Secretariat should be represented on The Wool Bureau's board of directors by the chairmen of the Australian Wool Bureau and the New Zealand and South African Wool Boards and the new director general. This change will take effect at the bureau's annual meeting in June 1955.

### South Central A.A.T.C.C. Holds Outing

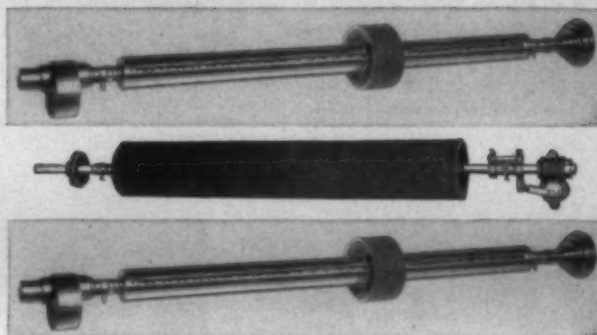
Dan Rion, Nopco Chemical Co., Athens, Ga., won low gross golfing honors at the recent annual Summer outing of the South Central Section, American Association of Textile Chemists & Colorists, held at the Rivermont Golf and Country Club, Chattanooga, Tenn. Mr. Rion shot a 79 to win the low gross trophy, a pair of linen golf slacks and a Kashmir T-shirt. He was also the winner of a Sunbeam cooker and deep fryer awarded at the annual banquet as a door prize.

R. P. Hardeman, Riegel Textile Corp., Trion, Ga., won low gross honors in the millmen division with a score of 80. R. M. Covington, Charles H. Bacon Co., Loudon, Tenn., won low net honors with a round of 89-13-76. Low net for suppliers was won by Jack H. Boykin, National Aniline Co., Atlanta, Ga., with a net of 73.

Other activities included fly casting, won by Homer Whelchel, Central Franklin Processing Co., Chattanooga, and horseshoe pitching, won by Charles Starnes, American Aniline Products, Chattanooga.

The outing committee was headed by A. R. Williams Jr., E. I. du Pont de Nemours & Co. Inc., Chattanooga.

## TWINS *plus* ONE



A pair of improved Roy Traverse Grinders and one improved Roller Grinder and there you have it. Your card clothing will always be tops in efficiency.

*Sales Engineers in the South*

William P. Cooper • Leon F. Frye

*Southern Office and Plant*

Linwood and Second Ave. • Gastonia, N. C.

Telephone Gastonia 4-2126

**B. S. Roy & SON COMPANY**

WORCESTER, MASS. • GASTONIA, N. C.

*The* **GASTONIA  
MILL SUPPLY CO.**

Industrial, Textile, Electrical and  
Plumbing Supplies & Equipment



GASTONIA, NORTH CAROLINA

**L A N D S C A P E**

Planning and Planting Service  
Consultation Without Obligation

**LINDLEY NURSERIES, INC.**

Drawer H, Greensboro, N. C.

# PRACTICAL BOOKS

on

## Textile Manufacturing

• • •

### CLARK'S WEAVE ROOM CALCULATIONS

By W. A. GRAHAM CLARK

*Textile Expert, U. S. Tariff Commission*

Third Edition. A practical treatise of cotton yarn and cloth calculations for the weave room. Price \$5.00



### COTTON MILL PRODUCTION FORMULAE

By JOHN T. KERSEY

Formulae for determining the speeds of shafting, pulleys, gears, bobbin capacity, picker, drawing frames and spinning yarn production, etc. Price \$1.00



### PRACTICAL LOOM FIXING

By THOMAS NELSON

Fifth Edition of this well known book. Completely revised and enlarged, including a chapter on the Crompton & Knowles Automatic Magazine. Price \$2.00



### Textile Directories

Clark's Directory of Southern Textile Mills

Pocket size, Price \$3.00

Desk size, Price 4.00

• • •

## CLARK PUBLISHING CO.

P. O. BOX 1225

CHARLOTTE 1, N. C.

Jack Anderson, Peerless Textiles Inc., Chattanooga, was vice-chairman.

### Bureau Reports On Fiber Consumption

Total shipments of rayon and acetate yarn and staple in May totaled 92,000,000 pounds, a slight gain over the previous month but 16 per cent below shipments in May 1953, according to the *Textile Organon*, statistical bulletin of the Textile Economics Bureau Inc. Rayon regular+intermediate tenacity yarn shipments in May amounted to 14,900,000 pounds, a gain of three per cent over April. Producers' stock in this category fell to 33,100,000 pounds. Acetate yarn stock at the end of the month fell to 21,600,000 pounds; shipments were 17,400,000, four per cent over April. Total shipments of rayon high tenacity yarn in May were 27,400,000 pounds, ten per cent under the previous month. Production of this yarn increased slightly and stock rose to 13,600,000 pounds at month-end. A new record was achieved in shipments of rayon staple+tow, with shipments of 24,700,000 pounds. Producers' stock remained unchanged. Acetate staple+tow shipments last month totaled 7,600,000 pounds, 19 per cent over the April figure. Stock of acetate staple at the end of the month declined to 7,200,000 pounds.

During April, imports of rayon staple for consumption amounted to 3,153,000 pounds, an increase of 57 per cent over March and the highest monthly total since September 1953. A year ago, April imports hit a record peak of 11,117,000 pounds. For the first four months of the current year, rayon staple imports have amounted to 7,309,000 pounds. This compares with 33,565,000 pounds for the

## Practical Textile Designing

by

THOMAS NELSON  
late Dean Emeritus  
School of Textiles  
N. C. State College



A new and enlarged edition of 196 pages; profusely illustrated; cloth bound. Price \$2.50 . . .  
Orders filled promptly.

## CLARK PUBLISHING CO.

P. O. BOX 1225 + + + CHARLOTTE 1, N. C.

comparable period in 1953. These data may include small amounts of acetate staple, the bulletin notes. Non-cellulosic staple imports in April were only 7,000 pounds and the total for the first four months of 1954 was 86,000 pounds. Most of this staple was Perlon from West Germany.

The *Organon* survey of world production of man-made fiber reveals that in 1953 global output aggregated 4,527,000,000 pounds, an increase of 16 per cent over the previous year and a new world record. By categories, man-made fiber output last year consisted of 4,142,000,000 pounds of rayon and acetate and 385,000,000 pounds of the non-cellulosic man-made fibers. Man-made fibers comprised 19 per cent of the total world output of fibers (man-made, cotton, wool, and silk), which amounted to 24,056,000,000 pounds in 1953. In 1952, the man-made fiber share was 17 per cent of the total. As of March 1954, world capacity for producing the man-made fibers is estimated by the *Organon* at 6,064,000,000 pounds annually. By the end of 1955, capacity is expected to reach 6,686,000,000 pounds. The biggest proportion of the increase in poundage terms is scheduled for rayon and acetate, with primary emphasis on the expansion of capacity for producing viscose rayon staple+tow. Percentagewise, however, the projected capacity increases for the non-cellulosic fibers are very much larger. This reflects, according to the *Organon*, the widespread demand for these newer fibers, which are still in short supply in many countries of the world.

In discussing the scope and coverage of the survey, the *Organon* points out that all the data cover the man-made fibers in filament yarn, monofilaments, staple+tow. The only exception is that, for rayon and acetate, production and capacity data for monofilaments are included only from 1952 forward. Data on glass fiber for textile purposes are excluded from the non-cellulosic fiber figures, except for the U. S. Rayon waste production data are also not included. All data for Iron Curtain countries are estimated.

Breaking down the world rayon and acetate production, the 4,142,000,000-pound 1953 total was made up of 2,084,000,000 pounds of filament yarn and 2,058,000,000 pounds of staple+tow. Total rayon and acetate output last year was 107 per cent greater than the 1937-1939 average. Compared with 1952, production of filament yarn in 1953 was up 13 per cent. The increase for staple+tow was 20 per cent. By process, the 1953 yarn+staple total was composed of 3,642,000,000 pounds of rayon (viscose and cuprammonium processes) and 500,000,000 pounds of acetate. The U. S. continues as the largest producer of acetate in the world, with an output in 1953 of 1,196,900,000 pounds or 29 per cent of the world total. Japan was in second place last year with 520,800,000 pounds or 13 per cent of the total. West Germany produced 375,200,000 pounds of rayon and acetate, nine per cent of the total. Other nations to top the 100,000,000-pound mark were the United Kingdom with 406,800,000 pounds, Italy 234,100,000 pounds, and France 203,100,000 pounds. The six leading producers accounting for 71 per cent of total world production.

By major areas, the *Organon* survey reveals that the recovery in production in 1953 compared with 1952 was most pronounced in Western Europe and Japan. Output in the Soviet Union and satellite countries is thought to have increased by five per cent from 1952 to 1953. Compared with the previous year, total European output was up by 20 per cent, North America six per cent, South America 11 per cent, and Africa and Australia 29 per

**LIFTS DIRT FROM FLOORS...  
HOLDS IT OFF...**

# CINDET

**100% ACTIVE 100% SAFE!**

**NEW LIQUID SYNTHETIC DETERGENT**



CINDET is *surface-active*—it works **LIFTING** floor dirt, grease and old water-emulsion wax from floors and **HOLDING** it in suspension in a fluffy mass of energetically-cleaning suds.

Dilute a little CINDET in **HARD** or **SOFT** water . . . apply with clean mop . . . let suds stand 5 or 10 minutes . . . scrub only if necessary, and rinse thoroughly. The result: **AMAZINGLY BRIGHT, CLEAN FLOORING.**

DOLGE backs up CINDET with a complete-satisfaction-or-deal-is-off **GUARANTEE!** Write for literature; have your DOLGE SERVICE MAN demonstrate CINDET on your dirtiest, greasiest flooring.

**THE SUDS DO THE WORK!**

**FREE SANITARY SURVEY**  
OF YOUR PREMISES  
SEE YOUR DOLGE SERVICE MAN

**DOLGE**  
WESTPORT, CONNECTICUT

# NORTH

INCORPORATED

## MANUFACTURING CHEMISTS

Atlanta, Ga. • P. O. Box 123, Sta. A • Phone RAYmond 2196  
Marietta, Ga. • P. O. Box 92 • Phone Marietta 9-4323

The Nation's largest manufacturer of Sizing Compounds,  
Gums, Waxes, and other kindred products for all warp yarns.

## R. M. Taylor Co.

**FAMOUS FOR FINE FURS**

218 New Street Quakertown, Pa.

• **SHUTTLE FUR** •

For better quality cloth at lower cost use our uniform Grade Shuttle Fur.  
Ask for free samples and prices in any grade and width.

## WATSON and DESMOND

Southern Representatives  
P. O. Box 1954 Charlotte, N. C.



"What You Want

When You Want It"



# WONALANCET

*Carded and Combed*  
**COTTONS**  
**and SLIVERS**

*for*  
*Woolen and Worsted Mills*  
**WONALANCET COMPANY**

153 Peachtree St., Atlanta, Georgia

*Mill and Main Office:*

128 Burke St., Nashua, New Hamp.



**BURKART-SCHIER CHEMICAL CO.**  
**CHATTANOOGA, TENNESSEE**

MANUFACTURING CHEMISTS FOR THE TEXTILE INDUSTRY

**J. N. PEASE & COMPANY**

*Industrial Engineers*

119½ E. FIFTH ST.

CHARLOTTE, N. C.

cent. Thirty-six of the 38 countries covered in the *Organon* survey produce filament yarn by the viscose process, or plan to do so by the end of 1955. Acetate yarn is either produced or expected to be produced in 18 countries. Cuprammonium yarn is now produced only in Italy, Japan, West Germany and the U. S. The viscose process is employed for the production of staple+tow in 33 countries, while 11 nations manufacture acetate staple+tow. Cuprammonium rayon staple+tow is made only in the U. S., Western Germany and Italy.

While in a number of countries little or no expansion in productive facilities is contemplated for rayon and acetate capacity, in others there is a sizable increase planned. In Japan, for instance, rayon and acetate capacity at the end of 1955, according to the *Organon*, is expected to reach 671,000,000 pounds. If all expansion schedules are completed by the end of 1955, the U. S.'s share of total world capacity will be 29 per cent. The other nations' shares will be Japan 12 per cent, Western Germany and the United Kingdom eight per cent each, Italy seven per cent and France five per cent. In the non-cellulosic man-made fiber category, the U. S. produced 78 per cent of the world total in 1953. This compares with 82 per cent in 1952. This figure, however includes some glass fiber which is not included in the figures of foreign countries. Projected growth of foreign capacity by the end of next year, the *Organon* states, will reduce the U. S. share of total capacity to 71 per cent.

## Average Cotton Consumption Off In May

The Census Bureau reported cotton consumption for the period of May averaged 32,294 bales for each working day.

This compared with an average 37,402 bales for the corresponding period a year ago, and with 33,564 for the April period this year.

Consumption of cotton in May totaled 645,857 bales compared with 748,049 in May last year and 660,209 for the April period this year.

Consumption of lint for the ten-month period ended May 29 totaled 7,256,858 bales. This compared with 7,940,948 in the corresponding period a year ago.

Cotton on hand May 29 included:

In consuming establishments, 1,587,056 bales of lint compared with 1,770,672 a year ago.

In public storage and at compresses, 8,941,629 bales of lint compared with 4,681,770 a year ago.

Cotton spindles active on May 29 totaled 19,325,000 compared with 19,457,000 on May 1 this year and 20,045,000 on May 30 a year ago.

## Unfilled Yarn Orders Up Ten Million Pounds

Bookings by carded cotton sales yarn spinners during May added about ten million pounds to their unfilled order backlogs, the Textile Information Service reports. As of May 29, unfilled orders on spinners' books amounted to 9.76 weeks' production and were four times stocks on hand, compared with backlogs on May 1 equal to 7.70 weeks' output and 3.09 times stocks. On May 30, last year, order backlogs equalled 8.44 weeks' production and were 6.74 times the stocks on hand. Spinners' inventories, including yarn made for future deliveries against unfilled orders, amounted to 2.44 weeks' production on May 29. This compared with stocks on May 1 equal to 2.49 weeks'

production and with inventories at the end of May 1953, amounting to 1.256 weeks' output. According to statistics of the Carded Yarn Association covering reports from approximately 1.4 million member spindles, production in the week ended May 29 consisted of 33.8 per cent knitting yarn, 47.6 per cent weaving yarn, and 18.6 per cent all others. On May 1, the percentages were 33.2, 48.4 and 18.4 respectively and on May 30, 1953, they were 31.1, 52.2 and 16.7.

### A.C.M.I. And N.F.T. Explore Unity Proposal

Representative groups from the American Cotton Manufacturers Institute and the National Federation of Textiles met in New York City on June 14 to explore the possibility of evolving a closer unity between the two groups. The National Federation of Textiles is the trade association which represents synthetic fiber weaving mills and other companies in the synthetics field. This proposal has been discussed previously in an informal vein by both groups.

At the New York meeting, the A.C.M.I. was represented by the following committee: Ellison S. McKissick (chairman), Alice Mfg. Co., Easley, S. C.; R. G. Emery, J. P. Stevens & Co., Greenville, S. C.; F. E. Grier, The Abney Mills, Greenwood, S. C.; H. K. Hallett, Kendall Mills, Charlotte, N. C.; Charles C. Hertwig, Bibb Mfg. Co., Macon, Ga.; Percy S. Howe Jr., American Thread Co. Inc., New York City; Roger Milliken, Deering, Milliken & Co. Inc., New York City; and J. Craig Smith, president of A.C.M.I. and president of Avondale Mills, Sylacauga, Ala.

William N. Chace, Greenwood Mills Inc., acted as chairman of the committee representing the N.F.T. Other committee members were J. Calhoun Harris, Deering, Milliken & Co. Inc.; H. W. Hilgert, Dundee Mills Inc.; R. S. Kilborne, William Skinner & Sons; Edmon G. Luke, Textron Inc.; Andrew J. Sokol, J. P. Stevens & Co. Inc.; and Donald B. Tansill, M. Lowenstein & Sons Inc.

### Corduroy Council Elects Officers

The Corduroy Council of America recently named Harvey Raymond, Cone Mills Inc., as its chairman for the coming year. Other officers elected included Arthur Svensson, Southeastern Cottons Inc., treasurer; and Larry Washer, Vanetta Corduroy Corp., secretary. Continuing on the council's permanent committee of seven are Lee Wood, Merrimack Mfg. Co. Inc.; Herman Bernstein, Bernside Mills Inc.; Langdon Hockmeyer, Hockmeyer Brothers Inc.; and Anthony M. Koenig, Reeves Brothers Inc. Mrs. Clare Elliott Nelson continues as director. The council was formed a year ago to help manufacturers in all trades and in all markets by promoting a greater use and acceptance of corduroy. The council, with offices in New York City, is made up of 18 participating firms.

### J. W. Valentine Co., Inc.

**Selling Agents**

40 Worth St.

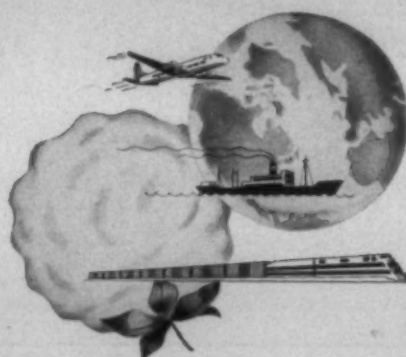
New York City

*Southern Representative*

**T. HOLT HAYWOOD**

Wachovia Bank & Trust Co. Bldg.

Winston-Salem, N. C.



### All the World's a Market for Textiles

In every corner of the globe there's a market for American textiles. Through years of experience, our resident representatives have acquired invaluable knowledge in presenting the products of American Mills.

Combined with full coverage of the American textile market, this broad service affords important distribution for the American Mills we are privileged to serve.

**Joshua L. Baily & Co., Inc.**

40 WORTH STREET, NEW YORK 13, N. Y.

**Bryant**

**ELECTRIC REPAIR CO., INC.**

**Electrical  
Contracting  
& Engineering**

TELEPHONE 5-3466

GASTONIA, N. C.

**Industrial Engineers**

SPECIALIZING  
IN TEXTILES FOR  
OVER ONE-THIRD  
OF A CENTURY

**COST SYSTEMS  
PAY ROLL CONTROLS  
SPECIAL REPORTS  
WORK-LOAD STUDIES  
COST REDUCTION REPORTS**

**Ralph E. Loper Co.**

GREENVILLE, S. C. - Tel. 2-3868  
FALL RIVER, MASS. - Tel. 6-8261

# CLASSIFIED ADVERTISING

## EATON & BELL Patent Attorneys

904 Johnston Bldg., Charlotte, N. C.  
1149 Munsey Bldg., Washington, D. C.

## GUARANTEED USED BOBBINS

You pay only for bobbins you accept as in good usable condition. Send us samples of what you need. Large stock of spinning bobbins, quills, skewers, twistlers, etc.

CHARLES G. STOVER COMPANY  
West Point, Ga.

## YOU CAN COUNT ON WAK COUNTERS

Single - Double - Triple

Rotary Counters • Slasher Counters • Hank Clocks  
Pick Counters • Picker Counters • Yardage Counters

**WAK INDUSTRIES** Charlotte, N. C.

## CHARLAB KSB CLEANER

Removes inks, dyestuffs, pigments, varnishes, waxes, alkyl, UF and melamine resins from equipment.

Sample no charge. Dept. C.E.

CHARLOTTE CHEMICAL LABS., INC.  
CHARLOTTE, N. C.

## BROOMS

The Association of the Blind of  
South Carolina

1501 Confederate Ave. Tel. 6013  
Columbia, S. C.

## POSITION WANTED

as cotton buyer or assistant. 30 years' mill experience. Present location 12 years. Plants now liquidating. Married. Age 48.

Reply Box "FLJ," care Textile Bulletin  
P. O. Box 1225, Charlotte 1, N. C.

## PARTNER WANTED

Financially able to purchase one-half interest and qualified to manage small 3,500 Spindle Yarn and Duck Mill. Owner wants to retire. Give references, experience and financial information first letter. Reply to

Box "CVH," care Textile Bulletin  
P. O. Box 1225, Charlotte 1, N. C.

## NEED SOUTHERN SALES AGENT?

Am experienced, aggressive salesman and have wide acquaintance in Southern textile industry. Now representing one well known manufacturer and am seeking two or three additional, non-competitive accounts. Best of references.

Write "S. S. A.," care Textile Bulletin  
P. O. Box 1225, Charlotte, N. C.

• If you want a new job, if you are seeking someone to fill a position, the classified advertising department of Textile Bulletin is ready to help. The classified section is read by both employees and employers.

• Firms having textile mill equipment for sale also find Textile Bulletin classified advertisements valuable in establishing business contacts.

**CONFIDENTIAL EMPLOYMENT SERVICE**—For textile executives seeking positions and employers seeking new personnel. Our service is rendered free to employers. No service fee is charged to applicants until position is accepted. We invite your inquiries.

**CHARLES P. RAYMOND SERVICE, INC.**

284 Washington St.

Phone: Liberty 2-6547  
Over 55 Years in Business

Boston 8, Mass.

## CLASSIFIED ADVERTISING

### CLASSIFIED ADVERTISING

Rates: \$4 per inch for bordered insertions; four cents per word for insertions without borders. Minimum charge: \$1 per insertion.

TEXTILE BULLETIN  
P. O. Box 1225  
Charlotte 1, N. C.

## A. Benson (Ben) Davis

New, Used and Rebuilt Machinery  
Manufacturers Agent  
Appraisals and Liquidations

2710 Picardy Place  
Phone 3-6661  
Charlotte 7, N. C.

**BRASS  
PIN-  
PLATES**  
All Sizes

PUT YOUR PIN TENTERS IN  
TIP-TOP CONDITION  
• Pins in Stainless  
Steel, Plain Steel  
• All Diameters  
Any Length  
SEND US OLD  
PLATE FOR  
QUOTATION

**SOUTHERN TEXTILE WORKS**  
P. O. BOX 406 ANDERSON, S. C.

## WANTED

Experienced card room foreman. Must be hustler.

Address reply to "X," care Textile Bulletin,  
P. O. Box 1225, Charlotte, N. C.

**POSITION WANTED**—XD-Draper loom-fixer, experienced on fiberglass, wants job immediately. Married, three children, age 49. Will consider locating anywhere. Good references available. Reply to Box "CE," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

**POSITION WANTED** as superintendent of small spinning and weaving mill by man thoroughly experienced in carding, spinning, and weaving, and who is capable of acting as supervisor of all three departments as well as superintendent. A-1 references. Married, with family. Reply to Box "GWH," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

**FOR SALE**—Ideal industrial sites adjoining city limits of Concord, N. C. 1,000 feet railroad frontage near junction of 29 and 29A highway. Up to 30 acres available. Reply to W. L. Ezzell, 205 Cabarrus Bank Building, Concord, N. C.

**OVERSEER WEAVING AVAILABLE**—12 years' experience as overseer on all types of yarns including worsted, wool and newest synthetics. I. C. S. graduate, high school education. Good manager of help. Married; sober. Now employed, but want job with better future. Will come for interview. Address Box "JFR," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

**POSITION WANTED** as cotton buyer with 5,000 to 40,000 bale mill in Southeast. Experienced in Eastern, Central, Western markets, and in cotton financing, hedging, and shipping. Write to Box "JDC," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.



# Before Closing Down

— TEXTILE INDUSTRY HAPPENINGS AS THIS ISSUE WENT TO PRESS —

## PERSONAL NEWS

The American Association of Textile Chemists & Colorists will present its highest award, the Olney Medal, to William D. Appel of Washington, D. C., at its annual convention in Atlanta in September 1954. Mr. Appel is chief of the textile section, National Bureau of Standards, Department of Commerce. The Olney Medal, is awarded annually to a citizen of the U.S.A. for outstanding achievement in the field of textile chemistry, including the development of chemical agents or chemical processes used in the manufacture of textiles or methods for their evaluation. The medal has been endowed by the Howes Publishing Co. and is a testimonial to the late Dr. Louis Atwell Olney, founder of A.A.T.C.C. Mr. Appel is the 11th recipient of the medal since its beginning in 1944. Mr. Appel was born in Washington, D. C., in 1892. He received a B.S. degree in chemistry from the University of Chicago in 1917 and an honorary master of science degree and professorship from Lowell Technological Institute in 1952. He joined the staff of the National Bureau of Standards in 1922 after five years experience in the dyestuff industry. He was appointed chief of the textile section of the bureau in 1929. He is the author of numerous technical papers on dyes and textiles.

Ellwood M. Eddington has joined Dow Corning's textile service department to assist in the application of silicone finishes. Mr. Eddington comes to Dow Corning from the Old Fort (N. C.) Finishing Plant, where he was plant superintendent. Prior to that, he was assistant plant manager for Duplan in Vallyfield, Quebec. Mr. Eddington served as technical service representative for Cluett, Peabody & Co. Inc. for five years in the Sanforized, Sanforset and Sanforlan divisions. During the war, he was in the inspection service of the Quartermaster Corps on textile contracts, procurement and quality control. He also served on the textile section of the Quartermaster Board and on the staff of the Quartermaster General, European Theater Command. Before the war he worked as technical service representative for Calco Chemical Division of American Cyanamid Co. on the application of dyestuffs and finishes.

Charles E. Rodgers has resigned as product manager of staple fiber of the textile division of Celanese Corp. of America, Charlotte, N. C. Mr. Rodgers, who joined the firm in 1946, is scheduled to leave shortly after July 1.

Leon P. Brick, Onyx Oil & Chemical Co., Jersey City, N. J., was recently elected to succeed E. C. Haack, General Dyestuff Corp., as president of the Alumni Association of the Philadelphia Textile Institute at the 53rd annual reunion at Manufacturers Country Club, Oreland, Pa. Others elected:

William A. Popp, William A. Popp and Associates, first vice-president; William Maynard, National Woven Label Co., second vice-president; Frederick Barth, Industrial Rubber Co., third vice-president; W. Lyle Holmes, Archibald Holmes Co., treasurer, and Frank L. Cissy, secretary.

D. E. Philpott, laboratory instructor in yarn manufacturing, is retiring after 48 years with the A. French Textile School at Georgia Tech. Students and alumni of the school contributed \$885 for a farewell gift. Mr. Philpott plans to spend his time farming.

Arthur Tousignant, general manager of Spofford Mills Inc., Wilmington, N. C., has been made a vice-president of the company. He will continue as general manager.

Don Maddox, a vice-president of Textiles Inc., Gastonia, N. C., was recently elected president of the greater Gastonia United Fund & Council. He will head Gastonia's United Fund campaign this Fall.

E. Lyle Scruggs, vice-president, engineering, The Springs Cotton Mills, Lancaster, S. C., was recently paid tribute as the oldest member of the graduating class of 1954 at the University of the South, Sewanee, Tenn. Mr. Scruggs lacked credits in math and language when his class finished at Sewanee in 1912. Enrolling as an extension student at the University of South Carolina at Columbia, he made up his deficiencies and returned to Sewanee, after 42 years, to become a bachelor of science.

John F. O'Neil has been appointed to the research staff of Emkay Chemical Co., Elizabeth, N. J. Mr. O'Neil, a graduate of New York University, has had much development experience in the field of soaps, detergents, cosmetics, adhesives, coating and enzymes. During the past 12 years he has been associated with Colgate Palmolive Co.,

National Oil Products, Yeast Products Co. and Colloids Inc.

Jesse G. Maddox, superintendent of the Unity Spinning Plant, Callaway Mills Co., LaGrange, Ga., was awarded a diamond emblem for 25 years service on June 4. Mr. Maddox joined the company as a supply room clerk in 1929. He has been superintendent of Unity since February, 1947.

Alfred B. Emmert, vice-president of Dan River Mills Inc., Danville, Va., has been elected to the board of managers of the New York Cotton Exchange. Mr. Emmert has been vice-president of Dan River Mills since 1944 and a member of the company's board of directors since 1950. He has been a member of the New York Cotton Exchange since 1950.

## OBITUARIES

**Lawrence P. Holland**, 87, secretary of Lily Mills Co., Shelby, N. C., died recently. Mr. Holland had been secretary of the firm for ten years and was with the company 36 years, formerly as bookkeeper and credit manager.

**Harry E. Lindley**, 70, industrial engineer for Robert & Co., died recently in Atlanta, Ga. Mr. Lindley, a graduate of Georgia Tech, had been in the engineering field 50 years. Survivors include two daughters, four brothers and two sisters.

**Cooper Powers**, 49, an official of Quitman (Ga.) Mills Inc., died June 1 in Valdosta, Ga. Mr. Powers had been an official of Quitman Mills for a number of years, serving as office manager and general assistant to the president. He is survived by his widow and a brother.

**C. E. Williams**, 69, president and treasurer of Johnston & Bassett Inc., died recently at Worcester, Mass. Mr. Williams was

— — — **HANDY SUBSCRIPTION BLANK** — — —

Please enter my subscription to **TEXTILE BULLETIN**  
for one year at \$1.50 or three years at \$3.00.

(Check) (Check)

**SIGNED** \_\_\_\_\_

**POSITION** \_\_\_\_\_

**FIRM** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_

**REMITTANCE ENCLOSED, SEND BILL**  
Please Send Money Order or Check as we cannot be responsible for cash.

Mail to **TEXTILE BULLETIN**, P. O. Box 1225, **CHARLOTTE 1, N. C.**

(NOTE: In some cases four to six weeks are required in the processing of a new subscription before copies begin to reach you; please be patient.)

## BEFORE CLOSING DOWN

general manager of the firm from 1922 to 1951, when he relinquished that post to his son Jefferson. In 1912, when owner of Hubbard Machine Co., he developed anti-friction bearings for textile machinery and it is claimed that his ideas on bearings are now being universally used. He is survived by his widow, two sons and two daughters.

## MILL NEWS

**ENTERPRISE, ALA.**—An enlargement program to increase production 40 per cent has been launched by Bama Cotton Mills here. The new construction will consist of a large basement now excavated under the present weave room and an addition to the building that will increase the total floor space by more than 24,000 square feet. The installation of 172 new looms will eventually occupy the added floor space. After the completion of the expansion program, the firm is expected to raise its cotton consumption from 15,000 to 25,000 bales annually. The monthly payroll will be increased from \$90,000 to about \$108,000, it is said.

**JACKSON, MISS.**—The American Thread Co. of Jersey City, N. J., has qualified for business in Mississippi with \$18 million capital stock, according to Mississippi's Secretary of State Heber Ladner. The company is qualified to manufacture cotton, linen, silk, wool and other threads, cloths and fabrics.

**MOORESVILLE, N. C.**—Biberstein, Bowles and Meacham, architects of Charlotte, N. C., have been retained to draw up plans and specifications for and supervise construction of a 126,000 square foot factory here for Premium Spinning Mills Inc. The Mooreville Industrial Council Inc., which is sponsoring the new yarn plant here, hopes to award construction contract on June 29 for the \$136,000 structure. The plant will be located on the Highway 150 bypass about midway between Highways 21 and 150 inside the city limits. The company management—Mark Leopold, Mac Bier and Richard Virgil of New York City—have expressed the hope of beginning operations by Sept. 1. Construction is expected to get underway June 30.

**ENKA, N. C.**—Commencement of construction on a new research building near its rayon plant here has been announced by American Enka Corp. Authorization for an expenditure of \$1,130,000 for the new unit has been approved, officials said. To be situated about 300 yards Northwest of the present rayon plant, the building will be constructed so as to permit additional units as required. The initial unit will be 180 by 110 feet with about 60 per cent of the building three stories high and the remainder one story. It will have a structural steel frame, brick and concrete construction, and aluminum trim. It will be completely air-conditioned and acoustically treated. The unit will contain physical and chemical laboratories, a three-story synthetic polymer pilot plant, and general administrative offices for research personnel and the patent department.

## Index to Advertising

	Page		Page
<b>-A-</b>		<b>-L-</b>	
Aldrich Machine Works	7	Lindley Nurseries, The	111
American Moistening Co.	4	Loper Co., Ralph E.	115
Armstrong Cork Co.	16 and 17		
Atlanta Belting Co.	103	<b>-M-</b>	
<b>-B-</b>		Manhattan Rubber Division Raybestos Man-	
Bahan Textile Machinery Co.	20	hattan, Inc.	106
Baily & Co., Inc., Joshua L.	115	M-B Products	108
Barber-Colman Co.	44	Monticello Bobbin Co.	103
Barkley Machine Works	104		
Barreled Sunlight Paint Co.	35	<b>-N-</b>	
Biberstein, Bowles & Meacham, Inc.	106	National Aniline Div., Allied Chem. & Dye	
Booth Co., Benjamin	109	Corp.	11
Borden Co., The (Chemical Div.)	5	National Starch Products, Inc.	31
Bryant Electric Repair Co., Inc.	115	New England Bobbin & Shuttle Co.	97
Bryant Supply Co., Inc.	104	N. Y. & N. J. Lubricant Co.	Front Cover
Bullard Clark Co., The	119	Norlander-Young Machine Co.	54
Bunkart-Schier Chemical Co.	114	North, Inc., Frank G.	113
<b>-C-</b>		<b>-O-</b>	
Calgon, Inc.	46	Oakite Products, Inc.	99
Carolina Refractories Co.	109	Orr Felt & Blanket Co., The	40
Charlotte Chemical Laboratories, Inc.	107 and 116		
Chemical Processing Co.	51	<b>-P-</b>	
Clinton Foods Inc.	95	Parks-Cramer Co.	10
Cole Mfg. Co., R. D.	109	Pease & Co., J. N.	114
Collins Bros. Machine Co.	99	Penick & Ford, Ltd., Inc.	34
Corn Products Sales Co.	6	Perfecting Service Co.	94
Crompton & Knowles Loom Works	9	Philadelphia Quartz Co.	40
Crompton-Richmond Co., Inc. (Factoring Div.)	91	Piedmont Processing Co.	105
Cronland Warp Roll Co., Inc.	107	Precision Gear & Machine Co.	8
<b>-D-</b>		<b>-R-</b>	
D & C Machine Co.	106	Raybestos-Manhattan, Inc.	
Davis, A. Benson (Ben)	116	General Asbestos & Rubber Div.	106
Dillard Paper Co.	23	Raymond Service, Inc., Chas. P.	116
Dixie Leather Corp.	43	Rice Dobby Chain Co.	99
Dolge Co., The C. B.	113	Rohm & Haas Co.	27
Draper Corp.	2	Roy & Son Co., B. S.	111
Dronfield Bros.	28 and 107	<b>-S-</b>	
<b>-E-</b>		Saco-Lowell Shops, Inc.	18
Eaton & Bell	116	Scott Testers, Inc.	108
Engineering Sales Co.	30	Seydel-Woolley & Co.	25
<b>-F-</b>		Signal Thread Co., Inc.	26
Ferguson Gear Co.	104	Sims Metal Works	88
Forbes Co., Walter T.	42	Sinclair Refining Co.	108
Foster Machine Co.	39	Sirrine Co., J. E.	32
<b>-G-</b>		Slip-Not Belting Corp.	
Gaston County Dyeing Machine Co.	15	Solvay Process Div., Allied Chemical & Dye	
Gastonia Brush Co.	105	Corp.	88
Gastonia Mill Supply Co.	111	Sonoco Products Co.	3
Gastonia Roller, Flyer & Spindle Co.	97	Southern Electric Service Co.	92
Gastonia Textile Sheet Metal Works, Inc.	53	Southern Shuttles Div. (Steel Heddle Mfg. Co.)	37
General Asbestos Rubber Div. of Raybestos-		Southern States Equipment Corp.	14
Manhattan, Inc.	106	Southern Textile Works	116
General Dyestuff Corp.	29	Steel Heddle Mfg. Co. and Southern Shuttles	
Gossett Machine Works	41	Div.	37
Graton & Knight Co.	43	<b>-T-</b>	
Guardian Chemical Co.	97	Textile Apron Co.	92
Gulf Oil Corp. of Pa.	33	Textile Shops, The	34
<b>-H-</b>		Tool Service Engineering Co.	88
Hagan Corp. (Industrial Calgon)	46	<b>-V-</b>	
Holyoke Machine Co.	45	Valentine Co., J. W.	115
<b>-J-</b>		Veeder-Root, Inc.	Back Cover
Jacobs Mfg. Co., The E. H. (Northern and		<b>-W-</b>	
Southern Divisions)	119	WAK Industries	116
Jarrell Machine Co., W. G.	92	Watson & Desmond	113
<b>-K-</b>		West Point Foundry & Machine Co.	40
Keever Starch Co.	79	Westvaco Chem. Div. Food Machy. & Chem.	
		Corp.	19
		Whitehead Engineering Co.	42
		Whitin Machine Works	47
		Whitinsville Spinning Ring Co.	108
		Wonalancet Co.	114

**NOW-**

Meet the COMPLETE Line of



## "Verybest" Check Straps!

- *"Verybest"* CRESCENT — Curved, cut and shaped to conform exactly to the angle of the picker stick.
- *"Verybest"* ENDLESS — Circular, in the new oval shape. Glued and nylon-stitched for durability.
- *"Verybest"* REINFORCED — Expanded, with 12½% more wearing surface. Permits more gradual checking, cuts loom shock, saves power. Conforms to the angle of the picker stick.
- *"Verybest"* CONVENTIONAL — Straight, cut to your own specifications. Uniform in width, thickness, and performance.

ALL "Verybest" Check Straps are made from carefully selected domestic and imported hides, expertly graded, constantly re-checked in process, painstakingly calipered, and rigidly inspected. Made and stocked at:

THE BULLARD CLARK CO.

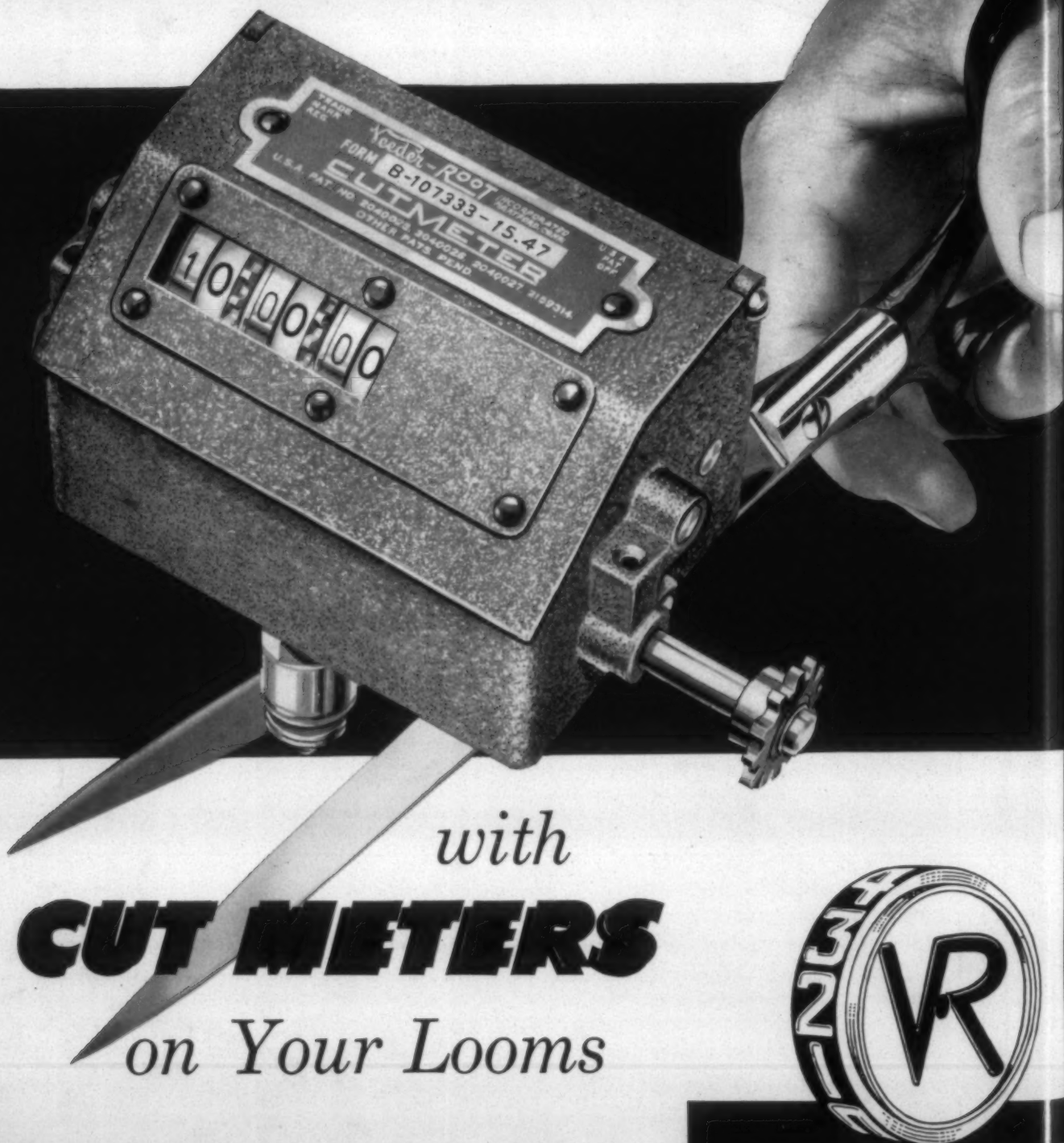


**SOUTHERN  
DIVISION**  
Charlotte, N. C.

**NORTHERN  
DIVISION**  
Danielson, Conn.



# Get CUT-UNIFORMITY...



## with **CUT METERS** on Your Looms

Whether your first concern is to cut down on seconds . . . to satisfy a hard-to-please market . . . or to step up the efficiency of a subsequent handling or finishing operation . . . you've got to get uniform cuts of cloth from your looms.

The simplest, most effective answers to this need is Veeder-Root Cut Meters, because they're easy to operate . . . can be made to light a light or stop the loom at pre-set woven yardage. Reading is positive and remains until reset by weaver or cut boy. What's more, Veeder-Root Cut Meters are dependable, and have earned the acceptance of leading mills.

Now, whether your particular uniformity problems are on looms, frames, twistors or preparatory equipment, you can count on "The Name That Counts" to give you the help of factory-trained Veeder-Root engineers. Just write the nearest Veeder-Root office.



**VEEDER-ROOT**  
INCORPORATED

*"The Name  
That Counts"*



VOL

1

Sec  
N

Watching  
Washington

For The T  
Industry's

For The M  
Bookshelf

Serving T  
Industry

Editorial

Textile In  
Schedule

Opening,  
Starting &

Wet Pre  
Weaving

Blanching  
& Finishing

Maintenance  
Engineering &

Personal

Min. News  
Classified  
Advertising

To the Bu  
monthly b  
Co., 218 W  
Charlotte 2  
\$1.00 per y  
\$3.00 per y  
March 2,  
Charlotte,  
N.C.